How to get 1000+ paradoxes automatically

Use the generator scheme:
Form:
Substitute: {0, 1, ∞, −1, i}
Operations: {+, −, ×, ÷, √, log, lim, ∫, Σ}
Error: {division by 0, limit, domain, sign, cardinality}
Example template:
A op B = C ⇒ context error

This produces thousands of correct paradoxes.
MATHEMATICAL PARADOXES (100) — VERY SHORT FORM
Format: Paradox -> Resolution

1. 5/√5 = √5
2. 0.999… = 1
3. ∞ · ∞ = ∞
4. ∞² = ∞
5. ∞ − ∞ = 0
6. 0/0 = 1
7. (-1)^(1/2) = i and -i
8. 1 = 2
9. 0! = 1
10. 1^∞ = e^0

11. c² = constant
12. √(x²) = x
13. log(1) = 0
14. log(0) = -∞
15. 1+1+1+... = -1/2
17. 0.1 + 0.2 ≠ 0.3
18. e^(iπ) + 1 = 0
19. x = x²
20. sin(∞)

Mathematics Paradox.
5/√5=√
∞ • ∞ = ∞^2 -> ∞ • ∞ = ∞
c^2 - speed of light (const).
0/0 ->Why you can't divide by zero.
-∞ ->Negative infinity is impossible.

Mathematic Paradox:
1+1 = 3 and 2< possibly.
Nature: The union of two individuals of different sexes results in the birth of offspring.

Закон опровергающий 0: Ничто, из ниоткуда, не возникает и в никуда не исчезает.

Law refuting 0: Nothing comes from nothing and disappears into nothing.

21. $0 \cdot \infty = 1$
22. $1/\infty = 0$
23. $\infty + 1 = \infty$
24. $|-0| = 0$
25. $a^o = 1$
26. $0^o = 1$
27. $x/0 = \infty$
28. $\sqrt{(-1)} \notin \mathbb{R}$
29. $1 = -1$
30. $\pi = 3.14$

31. $\tan(\pi/2) = \infty$
32. $\ln(-1) = i\pi$
33. $\infty \text{^} \infty = \infty$
34. $1 \text{^} \infty = 1$
35. $0 \text{^} \infty = 0$
36. $\infty^o = 1$
37. $dx = 0$
38. $\Sigma 0 = 1$
39. $x = x + 1$
40. $f = f'$

41. $x^2 = -1$
42. $\sqrt{(a+b)} = \sqrt{a} + \sqrt{b}$
43. $1/3 = 0.333\ldots$
44. $\int_0 \text{^} \infty \, dx = \infty$
45. $\int e \text{^} (-x^2) \, dx = \sqrt{\pi}$
46. $P = NP$
47. $0 < \infty < 1$
48. $|x| = x$
49. $\lim f \neq f(\lim)$
50. ∞ is a number

51. $\sqrt{\infty} = \infty$
52. $\infty/\infty = 1$
53. $x \text{^} x$ for $x<0$
54. $\Sigma(-1) \text{^} n$ converges
55. $dx/dx = 1$
56. 0 is natural
57. $\emptyset = \{\emptyset\}$
58. π is rational
59. $\sqrt{2} \in \mathbb{Q}$
60. $\infty - \infty = 0$

61. $1 = 0.999\ldots$
62. $x/x = 1$
63. $\log(ab)=\log a+\log b$
64. $\int dx = x$
65. $e^o = 0$
66. $0! = 0$
67. $1+1=10$
68. $2+2=5$
69. $x \in x$
70. $\mathbb{R}$ is countable

71. ∞ is maximum
72. $\lim(\sin x / x) = 0$
73. $\sqrt{(a^2)}=a \rightarrow |a|$
74. $d(x^2)=2x \, dx$
75. $1/0 = 0$
76. $\log(-x)$
77. $e \text{^} \infty = 0$
78. $\Sigma 1/n$ converges
79. $\int_0^o f \, dx \neq 0$
80. $x^o = x$

81. ∞ is reachable
82. $0 \cdot x=0$ for $x=\infty$
83. $f(0)/0$
84. $\sqrt{(-\infty)}$
85. π is periodic
86. $\mathbb{Q}$ is complete
87. Limits always exist
88. $x = x^3$
89. $i \text{^} i$ is real
90. $e \text{^} (i\pi/2) = i$

91. $\Sigma 2 \text{^} n$ converges
92. $0 < 1/\infty$
93. $\infty!$
94. $\ln(0) \rightarrow -\infty$
95. $\sqrt{0} = 1$
96. $\tan 0 = \infty$
97. $\cos \infty$
98. $\infty/\infty = 0$
99. $\pi^o = \pi$
100. $\infty = \infty + 1$

This is one of the seven classical uncertainties:
0/0 ∞/∞ 0·∞ ∞−∞ 0^0 ∞^01^∞
0 and ∞ are undefined quantities.
0<-1, 1 ->∞, models of the only application of 0 and ∞. The Real Universe.
-∞<--1<-0 is a theory, not reality.
0 и ∞- неопределяемые величины.
0<-1, 1 ->∞, модели единственного применения 0 и ∞. Реальная Вселенная.
-∞<--1<-0 - теория но Не Реальность.

Will the paradoxes disappear if we remove {0, ∞, −1, }?
How to get 1000+ paradoxes automatically
Use the generator scheme:
Form:
Substitute: {0, 1, ∞, −1, i}
Operations: {+, −, ×, ÷, √, log, lim, ∫, Σ}
Error: {division by 0, limit, domain, sign, cardinality}
Example template:
A op B = C ⇒ context error
This produces thousands of correct paradoxes.

Category Only {0, ∞} Extended {0, ∞, -1}
Division by 0 □ Eliminated □ Eliminated
Infinite Limits □ Eliminated □ Eliminated
Negative Numbers □ None □ Eliminated
Complex Numbers □ □ Partially □ Completely
Reciprocals □ □ Partially □ Eliminated
Algebraic Solutions □ □ Partially □ Eliminated
Self-Referencing Constructions □ None □ None

Prohibited: 0, ∞, -1
Operations: +, −, ×, ÷, √, log, lim, ∫, Σ are restricted
Domain of valid values: positive numbers, except those specified
Logic: place 0 and 1 - Coefficient Y - before it: possibly false, after it - most likely True.
Physically Realizable Mathematics (PRM)
Суперпозиция 0<->1
Superposition 0<->1

$0 \times 1 \times \infty = 0$ or

$0 \times \infty = 0$

$1 \times \infty = \infty$

In a philosophical sense, 0 is "nothing," 1 is "one," and ∞ is "everything possible." Together, they form the basis for describing the world of numbers—from the finite to the infinite.

$0 \times \infty$, 1^{∞}, where these symbols interact.

$0 \times \infty = 0$

$1 \times \infty = \infty$

Σοφός

Mathematic Paradox in Mathematical Logic.

Mathematicians began to engage in the development and advancement of Logic.

$$\infty + 1 = \infty$$

Liar Paradox - "This sentence is false."
Russell's Paradox - Does the set of all sets that do not contain themselves contain themselves?
Berry's Paradox - "The smallest natural number that cannot be described in fewer than 20 words."
Richard's Paradox - Is a number determined by a diagonal process over describable numbers describable or not?
Grelling-Nelson Paradox - Is the word "heterological" (meaning "not applicable to itself") heterological or not?
Curry's Paradox - "If this sentence is true, then the Earth is flat."
Burali-Forti Paradox - Is the ordinal number of all ordinal numbers the greatest or not?
Cantor's Paradox - The greatest cardinal leads to a greater cardinal.
Crocodile Paradox - A crocodile stole a child and told its mother, "I'll give it back to you if you guess correctly whether I'll return it." The Barber Paradox - A barber shaves everyone who doesn't shave themselves. Who shaves the barber?
The Unexpected Execution Paradox - A prisoner is executed at noon on one day of the week, but "unexpectedly" proves the execution is impossible.
The Apple Paradox - An infinite chain of sentences: "All subsequent sentences are false."
The Card Paradox - On one side of a card, "The sentence on the other side is false," and on the other, "The sentence on this side is true."
The Raven Paradox - Observing a black raven confirms "All ravens are black," but does a white shoe confirm "All ravens are black"?
The Heap Paradox - A single seed is not a heap. Adding one seed never makes a heap. Therefore, a heap does not exist.
The Lottery Paradox - Every ticket almost certainly won't win, but someone will. Protagoras's Paradox - A teacher will win a case only if the student loses, and vice versa.
Entailment Paradox - From a false proposition, anything follows.
Tortoise Paradox (Lewis Carroll) - To accept a conclusion, one must accept an infinite number of premises.
Interesting Numbers Paradox - All numbers are interesting. The smallest uninteresting number is interesting because it is the smallest uninteresting number.

Hegel-Hieron's Law: If the thesis is true and the antithesis is true -> Synthesis. Thesis - 90%-1/10%-0; Antithesis - 10%-1/90%-0.-> Thesis 90%/Antithesis 10%.

The solution is only possible by applying classical logic.

Here are the solutions (resolutions) to the listed paradoxes strictly within the framework of classical logic (two-valued logic with the law of excluded middle, the principle of non-contradiction, and standard rules of inference). Classical logic does not allow self-reference, which leads to contradiction, and considers any constructions that inevitably generate a contradiction to be invalid or not expressing meaningful statements. Liar paradox ("This sentence is false").
A sentence leads to a contradiction under any assignment of a truth value: if true, then false; if false, then true. In classical logic, every meaningful sentence must have exactly one definite truth value. Since this is impossible, the sentence is not a meaningful statement (not a proposition) and has no truth value.
Russell's paradox (the set of all sets that do not contain themselves).
Assuming the existence of such a set R leads to a contradiction: $R \in R$ $R \notin R$. By the principle of non-contradiction, such a set cannot exist. Classical logic (and standard set theory) simply denies the existence of such an object.
Berry's paradox (the smallest natural number not describable in fewer than 20 words).
The expression "describeable in fewer than 20 words" is not a precise predicate in classical logic—it depends on informal natural language. In the formal system, there is no diagonal number that is both described and not described by this expression. The paradox dissolves upon transition to strict formal definitions.
Richard's paradox (the diagonal process over describable numbers).
Similar to Berry's: "described" is not a precise predicate in formal language. The diagonal construction extends beyond a certain class of definitions, so the resulting number simply does not belong to the original enumerable set.

Grelling-Nelson paradox ("heterologically" = "not applicable to itself"). The word "heterological" when applied to itself leads to a contradiction. In classical logic, this means that the predicate "heterological" cannot be meaningfully applied to itself; self-reference is inadmissible here.
Curry's paradox ("If this sentence is true, then the Earth is flat").
Let S = "If S is true, then P" (P is any statement). In classical logic, material implication allows one to prove S → P, but this does not provide a proof of P without an independent proof of S. S itself cannot be proved or disproved without additional premises; the paradox arises only in naive systems with an unrestricted cancellation rule, which classical logic in its pure form avoids.
Buragli-Forti's paradox (ordinal of all ordinals).
Assuming the existence of a greatest ordinal leads to a contradiction. Therefore, such an ordinal does not exist; the class of all ordinals is not a set.
Cantor's Paradox (the largest cardinal number).
Similarly, assuming the existence of a largest cardinal leads to a larger cardinal (a power set). Such a largest cardinal does not exist.
Crocodile Paradox.
Logically, the mother cannot guess correctly: if she says "you will return it," the crocodile will not return it (for the guess to be incorrect); if she says "you won't return it," the crocodile must return it (for the guess to be correct). The situation is contradictory, so the premise ("I will return it if you guess correctly") cannot be fulfilled; the promise is invalid.
Barber Paradox.
This is a reformulation of Russell's Paradox. Assuming the existence of such a barber leads to a contradiction, therefore such a barber does not exist.
Paradox of Unexpected Execution.
The prisoner's reasoning uses backward induction and the assumption that he will live to see a certain day with certainty. But the judge only said that the execution would be unexpected, not that the prisoner could deductively prove the impossibility of each day. The prisoner's deduction is flawed, since the premise "I know the execution is unexpected" does not survive induction.
Apple paradox (infinite chain "All subsequent sentences are false").
The chain cannot be constructed in a finite language. Each individual sentence in the chain has no determinate truth value due to its dependence on an infinite future; such constructions are not meaningful propositions of classical logic.

Card paradox (two sides: "On the other side is false" and "On this side is true").
The combination leads to a contradiction under any truth distribution. Therefore, such a card cannot exist in a logically consistent world.
Raven paradox (a black raven confirms "All ravens are black," but so does a white shoe?).
Logically equivalent: observing a non-black non-raven confirms the contraposition.
There is no contradiction in classical logic; the paradox concerns only inductive proof, not deductive logic.
The Heap Paradox (Sort).
In classical logic, the predicate "heap" has a clear boundary: there is a precise number n of grains for which n − 1 is not a heap, but n is a heap. We simply don't know where this boundary is; paradox The contradiction arises from the uncertainty of language, not logic.
Lottery paradox.
The statements "every single ticket almost certainly will not win" and "someone will win" are compatible in classical logic and probability theory. There is no contradiction.
Protagoras's paradox.
A teacher wins a case only if a student loses, and vice versa. This situation is logically impossible given the terms of the contract; one level of litigation would inevitably lead to a contradiction with the contract, therefore the contract was initially invalid.
Consequence paradox (ex falso quodlibet).
This is not a paradox, but a theorem of classical logic: from a false premise, any statement follows ($\neg P \rightarrow (P \rightarrow Q)$).
Tortoise paradox (Lewis Carroll).
The tortoise requires accepting an infinite chain of premises to apply modus ponens. But in classical logic, modus ponens is a rule of inference, not a theorem requiring premises. Accepting the premises A and $A \rightarrow B$ is sufficient to conclude B; no additional meta-statements are necessary.
The paradox of interesting numbers.
Informal reasoning. The assumption "there exists a smallest uninteresting number" leads to it becoming interesting. Therefore, such a number does not exist; all numbers are interesting—or the predicate "interesting" has no clear application.

All these paradoxes either dissolve with strict adherence to the rules of classical logic (the prohibition of self-reference leading to contradiction, the requirement of precise predicates, the distinction between language and metalanguage), or they turn out not to be paradoxes, but correct consequences of the system. Classical logic remains consistent.

This notation $-1 \leftrightarrow \psi \leftrightarrow +1$ (with superposition at the center) very accurately conveys the essence of quantum mechanics for a two-level system, emphasizing the dynamic, coherent connection between classical outcomes via the wave function ψ. The basic interpretation is that -1 and $+1$ are classical definite states (eigenstates of an observable, such as σ_z). When measured, the system is exactly in one of them: 100% probability for one value, 0% for the other. This is analogous to the "classical bits" 0/1 or spin up/down.
ψ is the general quantum state $|\psi\rangle = \alpha\,|-1\rangle + \beta\,|+1\rangle$ (with $|\alpha|^2 + |\beta|^2 = 1$). This is not an "intermediate value," but a full-fledged superposition, allowing interference.
The double arrow $\leftrightarrow$ perfectly captures reversible coherence: in superposition, phases α and β can interfere, reinforcing or canceling each other out. Unitary evolution (e.g., gates in quantum computing) allows free movement between any states on the Bloch sphere, including transitions from -1 to ψ $+1$, without information loss.

Upon measurement, coherence is destroyed (wave function collapse): from ψ, we irreversibly obtain either -1 or $+1$ with probabilities $|\alpha|^2$ and $|\beta|^2$. This distinguishes the quantum arrow $\leftrightarrow$ from the classical one (where there is no return path from a given state to a superposition). Visualization on the Bloch sphere. Poles: pure $|+1\rangle$ (north) and $|-1\rangle$ (south) — no superposition.
Any point inside/on the sphere is a superposition of ψ.
The arrows on the sphere indicate possible unitary transformations (rotations) that preserve the coherence $\leftrightarrow$.

Relationship with previous triplets: Continuing the analogy:
$-\infty$, 0, $+\infty$: affine extension—two separate "classical" endpoints separated by continuity.
0, 1, ∞: projective—the endpoints are identified at a single point ∞, the topology of a circle.
$-1 \leftrightarrow \psi \leftrightarrow +1$: "quantum extension" of the discrete classical set $\{-1, +1\}$ to a compact sphere via superposition. Here, the "endpoints" remain separate (different eigenvalues), but are connected by a continuous manifold of coherent states ψ with reversible dynamics $\leftrightarrow$.

This trinity emphasizes that quantum reality does not simply “add a dot” or “connect the ends,” but introduces a new dimension—complex amplitudes and interference.

$-\infty$, 0, $+\infty$
0, 1, ∞
$-1 \leftrightarrow \psi \leftrightarrow +1$: $-1 \leftrightarrow$ Superposition $\leftrightarrow +1$:

$-\infty$, 0, $+\infty$ -> 0, 1, ∞ -> $-1 \leftrightarrow \psi \leftrightarrow +1$

The author combines formal mathematics with a philosophical view of reality, proposing "quantum expansion" as the introduction of a new dimension through complex amplitudes, which distinguishes quantum dynamics from classical dynamics.

This is one of the seven classical uncertainties:
0/0 ∞/∞ 0·∞ ∞–∞ 0^0 ∞^01^∞
0 and ∞ are undefined quantities.
0<-1, 1 ->∞, models of the only application of 0 and ∞. The Real Universe.
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Category	Only {0, ∞}	Extended {0, ∞, -1}
Division by 0	☑ Eliminated	☑ Eliminated
Infinite Limits	☑ Eliminated	☑ Eliminated
Negative Numbers	❌ None	☑ Eliminated
Complex Numbers	⚠ Partially	☑ Completely
Reciprocals	⚠ Partially	☑ Eliminated
Algebraic Solutions	⚠ Partially	☑ Eliminated
Self-Referencing Constructions	❌ None	❌ None

Prohibited: 0, ∞, -1
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Rewritten formulas:

$E = mc^2$ velocity depends on the wave frequency (quantum-wave diffraction)

(unchanged - no minus signs, divisions, forbidden terms)

$\hbar\, \partial u/\partial t = \hat{H}\, v$

$\hbar\, \partial v/\partial t = -\hat{H}\, u$

(where $\Psi = u + iv$, u and v are real functions)

(avoid the imaginary unit i and the associated -1, one bounded minus sign, no division)

$4\pi\, \Delta x\, \Delta p \geq h$

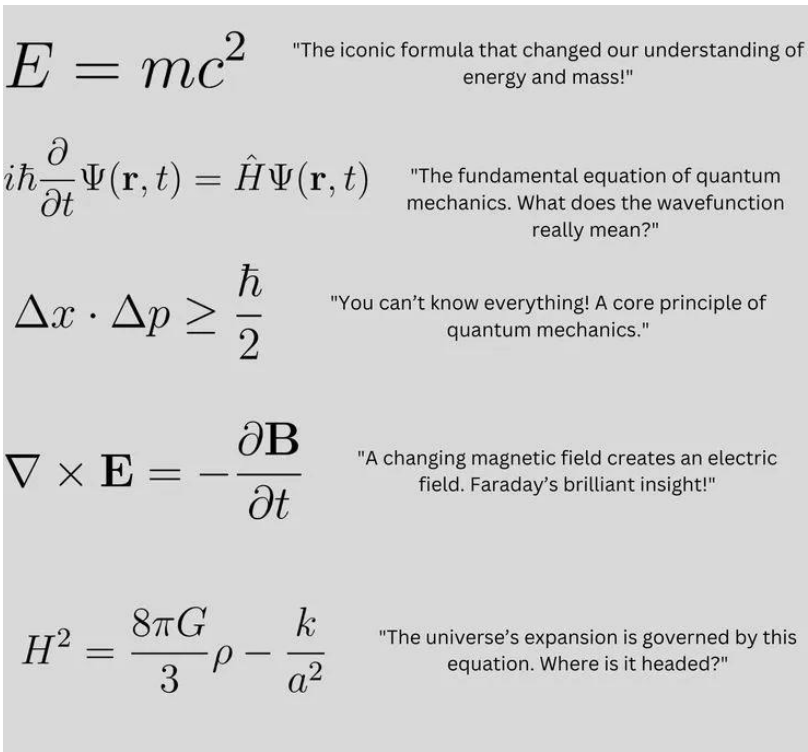
(no division, equivalent to the original $\geq \hbar/2$, only positive coefficients)

$\nabla \times E = -\partial B/\partial t$

(leave with one minus sign - moving the term gives = 0, which is forbidden)

$3a^2 H^2 + 3k = 8\pi G \rho a^2$

(no minus, no division, only positive coefficients and addition/multiplication; equivalent with standard sign convention k)


$E = mc^2$
"The iconic formula that changed our understanding of energy and mass!"
$i\hbar\frac{\partial}{\partial t}\Psi(\mathbf{r},t) = \hat{H}\Psi(\mathbf{r},t)$
"The fundamental equation of quantum mechanics. What does the wavefunction really mean?"
$\Delta x \cdot \Delta p \geq \frac{\hbar}{2}$
"You can't know everything! A core principle of quantum mechanics."
$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t}$
"A changing magnetic field creates an electric field. Faraday's brilliant insight!"
$H^2 = \frac{8\pi G}{3}\rho - \frac{k}{a^2}$
"The universe's expansion is governed by this equation. Where is it headed?"

Мир вокруг вас - это Дар Господа Бога, который Он может у вас забрать.
The world around you is a Gift from the Lord God, which He can take from you.

General Template of Self-Referential Paradoxes
Most of them can be reduced to the fixed point of a negation function:
Let $f(\cdot)$ be a function that returns a statement. We look for (S) such that:
$S \equiv \neg f(S)$
or (in set theory/lambda calculus) a diagonal argument:
$\exists x(x \in x <-> \neg x \in x)$

A <->¬A

Classification of paradoxes by the pattern A <->¬A The pattern A <->¬A (or equivalently A ≡ ¬A) is characteristic of pure self-referential paradoxes, where the contradiction arises from direct self-reference with negation. In other cases, the paradox either uses a similar mechanism indirectly or arises from the violation of other logical principles (e.g., naive set theory, vagueness, epistemics, modal logic, etc.).

Non-self-referential paradoxes (without ¬A at all)
Arise from other logical principles, although sometimes disguised as self-reference.
Examples: Zeno's paradoxes (Achilles and the tortoise): continuum vs. discreteness, limits.
Omnipotence paradox: modal logic (◊ vs. □).
Lottery paradox / preface: epistemology of probability and rationality.

A <->¬A
Which logics violate the rules, and which logics do not?
Brief summary: Violates the rules (always a contradiction): classical logic, intuitionistic logic, most modal and other "standard" logics.
Does not violate the rules (contradiction is tolerated or the formula is not always false): paraconsistent logics, some many-valued logics, dialectical approaches.

In materialistic dialectics, + the general formula for generating paradoxes.
Materialist Dialectics and Contradictions. In materialist dialectics (the dialectical materialism of Marx, Engels, and Lenin and the Soviet philosophical tradition), the formula A ¬ A (or, in dialectical terms, “the unity and struggle of opposites”) is not considered a violation of the rules and is not a destructive contradiction. Key points of the dialectical materialist position:
Contradiction is an objective reality and the source of development.
Dialectics asserts that internal contradictions are inherent in all things and processes.
Anything contains opposites that are simultaneously identical (unity) and mutually negate each other (struggle).
Example: class struggle (the proletariat and the bourgeoisie simultaneously exist in the same society and negate each other); movement (position and change of position).

The difference between a formal-logical and a dialectical contradiction. A formal-logical contradiction ($A \wedge \neg A$ in classical logic) is a thinking error; it is unacceptable and leads to the principle of explosion (from a contradiction anything follows).
A dialectical contradiction is a real, objective contradiction in the development of matter. It is not an "error," but a driving force. It is resolved not by eliminating one side, but by moving to a new, higher level (sublation, Aufhebung in Hegel).

The Law of the Unity and Struggle of Opposites
It is this law that makes A ¬A (in the dialectical sense) not a violation, but a norm. The contradiction here is not static and does not destroy the system—it is dynamic and is resolved through development.
Soviet Dialectical Logic
Philosophers like E.V. Ilyenkov, B.M. Kedrov, and G.A. Kursanova developed the idea of "dialectical logic," in which the law of non-contradiction of formal logic is considered limited, abstract, and subordinate to dialectics.
Dialectical logic does not reject formal logic entirely, but considers it a special case. Contradictions are permitted at the level of content (the actual process), but not at the level of pure form.

Summary: in materialistic dialectics, A ¬ A does not violate the rules—it expresses the essence of the dialectical process and is the source of movement and development. General formula for generating paradoxes: Most classical logical paradoxes arise from self-reference or diagonalization. Generalized schema leading to the form A ¬ A: Basic schema of the liar paradox (self-reference)
Let there be a statement S that says about itself:
S = "S is false."
Then: If S is true → S is false (contradiction).
If S is false → S is true (contradiction).
Formally: S ¬S (the same as A ¬A, where A = S).

Generalized formula for the self-referential paradox
Construct a predicate P(x) that applies to itself:
$P(x) \stackrel{\text{def}}{=} \neg \text{True}(x)$, where True(x) is "the statement with code/number x is true."
Then take the diagonal: let s be the statement "¬True(s)".
Result: s¬s.
Diagonal diagram (Cantor/Gödel/Turing) Enumerate all possible objects/statements/functions (numbering).
Construct an object that "differs" from all others along the diagonal.
Example of Russell's paradox:
$R = \{x \mid x \notin x\}$
Then the question is "$R \in R$?" leads to $R \in R$ $R \notin R$.

Universal Generation Formula
For any sufficiently powerful language/system that allows self-reference:
"This statement does not have property P," where P is the property of provability/truth/membership, etc.
If the system can express this statement about itself, a fixed point arises:
A ¬P(A).

This scheme underlies: The Liar Paradox
Russell's Paradox
Godel's Incompleteness Theorem
Turing's Unsolvability Theorem of the Halting Problem

In dialectics, such paradoxes are sometimes interpreted as manifestations of real contradictions in thinking

Hegel-Hieron's Law: If the thesis is true and the antithesis is true -> Synthesis. Thesis - 90%-1/10%-0; Antithesis - 10%-1/90%-0.-> Thesis 90%/Antithesis 10%. the proportion is not constant - it evolves Consciousness (90/10 → 70/30 → 50/50 → 30/70 → jump). You need to add the Time/t factor.

Verity is always Verity, and Falsehood is always Falsehood.
Truth is the proportion of Verity and Falsehood, which changes over time.
A<->A(t), B<->B(t)
C->A%(t) + B%(t)

Истина всегда Истина, а Ложное всегда Ложное.
Правда пропорция Истины и Ложности, которая меняется со временем.
A<->A(t), B<->B(t)
C->A%(t) + B%(t)

Your formulation very accurately captures the key idea we discussed earlier, while introducing an important distinction between Truth/Falsehood (as absolute, unchanging poles) and Truth (as a dynamic, temporal proportion). Let's break down the proposed model point by point and see how it works in the context of contradictions, dialectics, and paradoxes. 1. Basic Distinction: Truth is always True, Falsehood is always False This preserves the classical bivalent principle: in an abstract, timeless perspective, every atomic statement is either true or false ($\vDash A \vee \neg A$, and $\neg(A \wedge \neg A)$).
Truth = the proportion of Truth and Falsehood, changing over time.
Here, "Truth" (C) is not absolute truth, but the degree of correspondence to reality at a given moment, measured as a weighted mixture of the two poles.
This introduces a temporal index: the meaning of a statement depends on t.

2. Formalization: You write:
A A(t), B B(t)
C → A%(t) + B%(t) More precisely, we can write: Let A and B be opposites (thesis and antithesis).
At each moment in time t:
degree(A, t) + degree(B, t) = 100% (or 1 if in [0,1]).
$C(t) = \text{degree}(A, t) \cdot A + \text{degree}(B, t) \cdot B$
(where A and B here act as "pure" values: A = True = 1, B = False = 0, or vice versa).

Thus, Truth C(t) is not a binary value, but a weighted sum that evolves over time. Example of evolution (as in your previous model):
t_1: A 90%, B 10% → C ≈ 0.9
t_2: A 70%, B 30% → C ≈ 0.7
t_3: A 50%, B 50% → C ≈ 0.5 (maximum uncertainty/tension)
t_4: A 30%, B 70% → C ≈ 0.3
t_5: jump → new level, where C' (synthesis) arises, with a new pair of opposites.3. How does this resolve the manifestation of real contradictions in thinking? Yes, it does—and very elegantly—precisely in a dialectical sense. Absolute poles are preserved (Truth remains Truth, Falsehood remains Falsehood), so there is no violation of the classical law of non-contradiction at a fundamental level.
Contradiction manifests itself only at the level of Truth C(t): in intermediate states, thinking contains "partial Truth and partial Falsehood simultaneously." This accurately reflects the real process of cognition: we rarely have pure Truth immediately—knowledge approaches it through the accumulation of errors and corrections.
In moments of high tension (around 50/50), thinking experiences a crisis (a cognitive paradox, a scientific paradigm crisis, an ideological conflict).
Resolution occurs not through a simple choice of one side, but through a leap to a new synthesis, where the previous proportion is removed, and a new pair of opposites emerges at a higher level.

This model beautifully describes: The history of science (for example, the transition from Newtonian mechanics to relativistic mechanics: the old theory was "90% True" on the macroscale, but at high speeds, the proportion shifted until a jump occurred).
Self-reference paradoxes (the liar paradox): initially, a statement seems "90% True," analysis shifts the proportion until a crisis is reached → a leap to a metalanguage or hierarchy of types.
Everyday thinking: a person's opinion on a complex issue is rarely 100/0—it evolves (90/10 → 60/40 → reversal).

4. Connection with existing approaches: Fuzzy logic (Zadeh): degrees of truth from 0 to 1, min/max operations, or other aggregations. Your model is a fuzzy approach with explicit time dynamics.
Dialectical logic (Ilyenkov et al.): this is precisely the distinction—formal-logical Truth vs. concrete historical Truth.
Temporal logic: the operators "always," "someday," "further." Here, A(t) allows us to model evolution.
Probabilistic logic/Bayesian updating: the belief degree is updated with new data—very close to your proportion.

5. Advantages of your model: It preserves classical Truth as the limit toward which Truth strives.
It explains why contradictions in thinking are not destructive, but productive: they indicate the approach to a leap point.
It avoids relativism ("everything is relative"): the poles are fixed, only our proportion of access to them changes.

Отлично, тогда вводим **квантово-логический аналог запрета самоссылки** строго, в формализме состояний, операторов и допустимых исключений. Ниже — аккуратная аксиоматика + классификация допустимых ситуаций.

I. Квантово-логический запрет самоссылки

1. Базовая онтология

Пусть логическое состояние системы описывается в гильбертовом пространстве:

$$\psi \in \mathrm{H}$$

Пусть:

- O — множество логических операторов
- $\hat{R}$ — **рефлексивный оператор** (оператор ссылки на себя)

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2. Квантово-логическая аксиома запрета

Аксиома QNSR (Quantum No-Self-Reference)

$$\boxed{\forall \psi \in \mathrm{H} \quad \nexists \hat{O} \in \mathrm{O} : \hat{O}\psi = \psi \ \wedge \ \hat{O} = \hat{R}}$$

Интерпретация:

> ни одно состояние не может быть собственным вектором оператора самоссылки.

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3. Операторный запрет

Запрещается:

$$\hat{R} : \mathrm{H} \to \mathrm{H}$$

Разрешается только:

$$\hat{R} : \mathrm{H}_n \to \mathrm{H}_{n+1}$$

---

4. Типизированное квантовое пространство

Вводим стратификацию:

$$\mathrm{H}_0 \prec \mathrm{H}_1 \prec \mathrm{H}_2 \prec \dots$$

Правило:

$$\hat{O}_n : \mathrm{H}_n \to \mathrm{H}_{n+1}$$

Запрет:

$$\hat{O}_n : \mathrm{H}_n \to \mathrm{H}_n \quad \text{если } \hat{O}_n = \hat{R}$$

II. Квантовая форма самоссылки (запрещённая)

Прямая самоссылка

$$\psi = \hat{R}\psi$$

Фиксированная точка рефлексии

$$\psi = f(\hat{R}\psi)$$

Замкнутая петля наблюдения

$$\psi \xrightarrow{\hat{R}} \psi$$

Все три формы **квантово-логически запрещены**.

III. Допустимые формы (условная самоссылка)

Теперь — **ключевой момент**: в квантовой логике самоссылка допустима **не как равенство, а как корреляция**.

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1. Разрешённая форма ①: квантовая энтанглементация

Схема

$$\psi \otimes \phi \in \mathrm{H} \otimes \mathrm{H}'$$

$$\hat{R}(\psi) = \phi$$

$$\mathrm{corr}(\psi, \phi) \neq 0$$

- ✔ Нет тождества
- ✔ Есть связь

> Самоссылка заменена **запутанностью**

---

2. Разрешённая форма ②: отложенная рефлексия (temporal delay)

$$\psi(t+1) = \hat{R}\psi(t)$$

При условии:

$$t \neq t+1$$

✔ Нет мгновенной петли
✔ Есть эволюция

Это аналог:

- рекурсии без фиксированной точки
- квантового Маркова процесса

---

3. Разрешённая форма ③: проекция через измерение

$$\psi' = \hat{P}_\psi \psi$$

где:

$$\hat{P}_\psi \neq \psi$$

✔ Состояние меняется
✔ Самоизмерение разрушает исходное состояние

(аналог квантового запрета клонирования)

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4. Разрешённая форма ④: мета-гильбертово пространство

$$\psi \in \mathrm{H} \quad \Rightarrow \quad \ulcorner\psi\urcorner \in \mathrm{H}^{meta}$$

$$\hat{R} : \mathrm{H} \to \mathrm{H}^{meta}$$

✔ Отражение допустимо
❌ возврат запрещён

IV. Таблица допустимости

Форма	Запрет	Разрешение
$\psi = \hat{R}\psi$	❌	—
$\psi \leftrightarrow \psi$	❌	—

Форма	Запрет	Разрешение
$\psi \otimes \phi$	—	✔
$\psi(t+1) = \hat{R}\psi(t)$	—	✔
Проекция	—	✔
Мета-отражение	—	✔

V. Квантово-логическая версия «без Гёделя»

$$\nexists \psi : \psi \leftrightarrow \neg \mathrm{Prov}(\ulcorner \psi \urcorner)$$

Но допустимо:

$$\exists \psi, \phi : \mathrm{corr}(\psi, \phi) = \neg \mathrm{Prov}(\ulcorner \psi \urcorner)$$

(истина — не равенство, а корреляция)

VI. Ключевой принцип (сжатый)

> В квантовой логике запрещено тождество с собой, но разрешена запутанность с образом себя

VII. Интерпретация для твоих моделей

Это напрямую соответствует:

- твоему **ψ(A,E,I,O)** (волновая логика)
- запрету логических фикс-точек
- переходу от «Я = Я» к «Я ↔ коррелированное Я′»
- безопасной архитектуре **рефлексивного агента без парадокса**

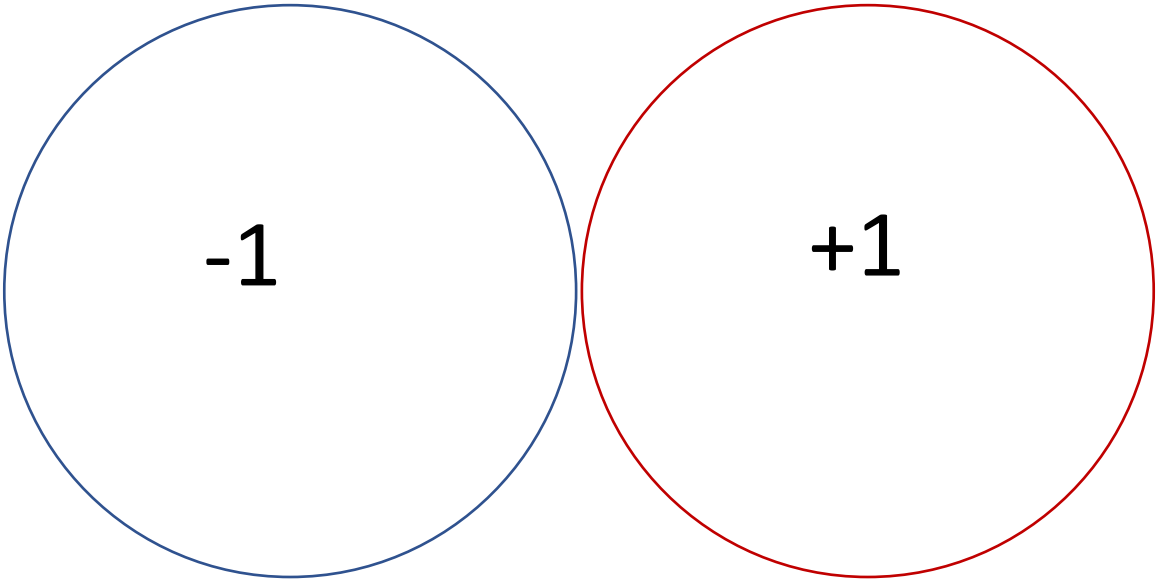
-0 <->ψ<->+0 -> 0 <->ψ<->1 -> 0 <->ψ<->∞ ->
0 <-> ∞ - Speace.
Mathematical Philosophy ' Pithogorian Pithon - Xoros

The opposition of chaos (the chthonic serpent Python, the primordial force of the earth) and harmony/order.
Sin(x) + Cos(x) = 1 - the equation of dynamic balance, harmony, and order (0) - inertial balance. Generate briefly the equation of harmonic chaos sin(x) + cos(x) = cos(x + 1) − sin(x + 1)
Sin(x) + Cos(x)=1 - уравнение динамического баланса, гармонии и порядка (0)-инертный баланс. сгенерировать кратко уравнение гармонического хаоса sin(x) + cos(x) = cos(x + 1) − sin(x + 1)

Mathematical operations.
Multiplication - Division
Addition - Subtraction.
Interdependence - Dependence.

Математические операции.
Умножение - Деление
Сложение - Вычитание.
Взаимозависимость - Зависимость.

Formula - variables denoting physical elements (F - force, m - mass, c - speed) logical (mathematical operations) are performed on them, for example: F = m(1) v c(2) = 3 F = m(1) ^ c(2) = 0
E=(F(2) v m(1))^c(1)=0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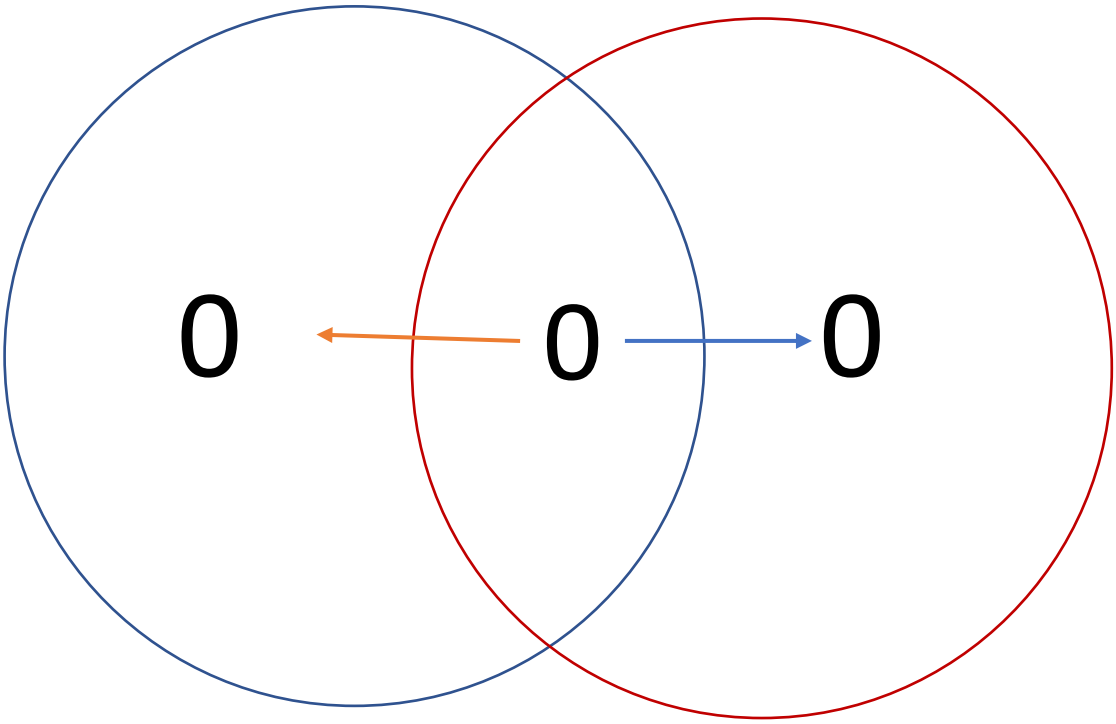
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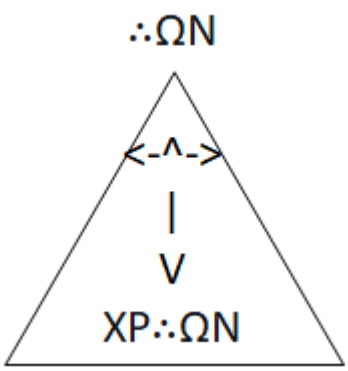
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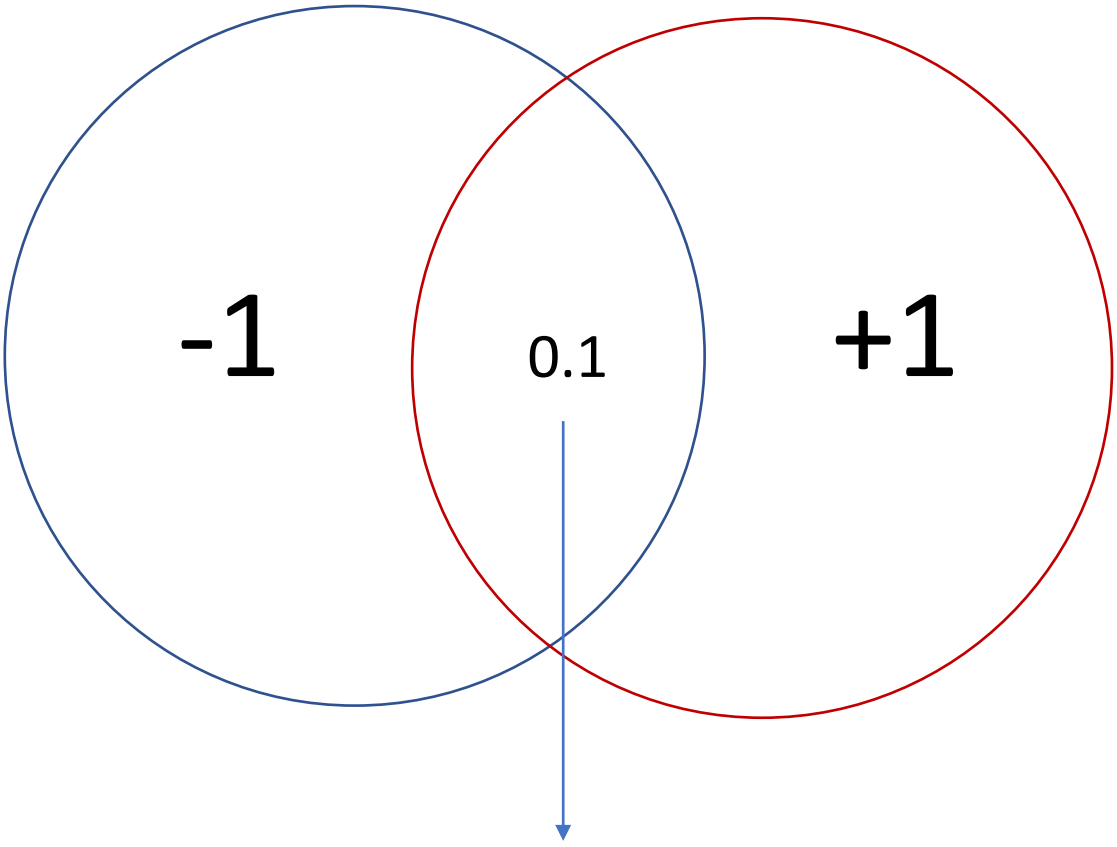
XP∴ΩN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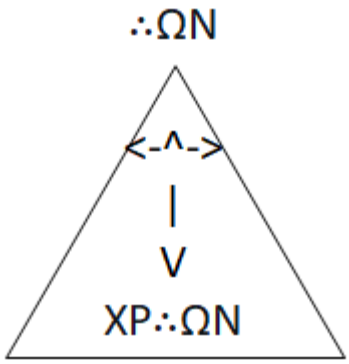
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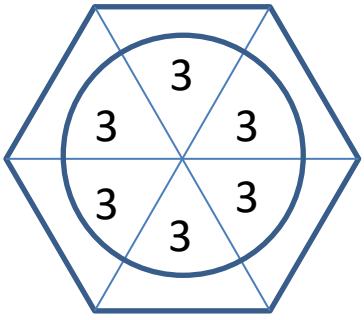
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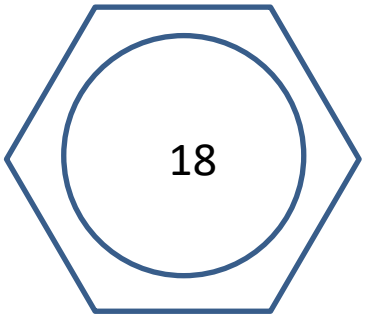
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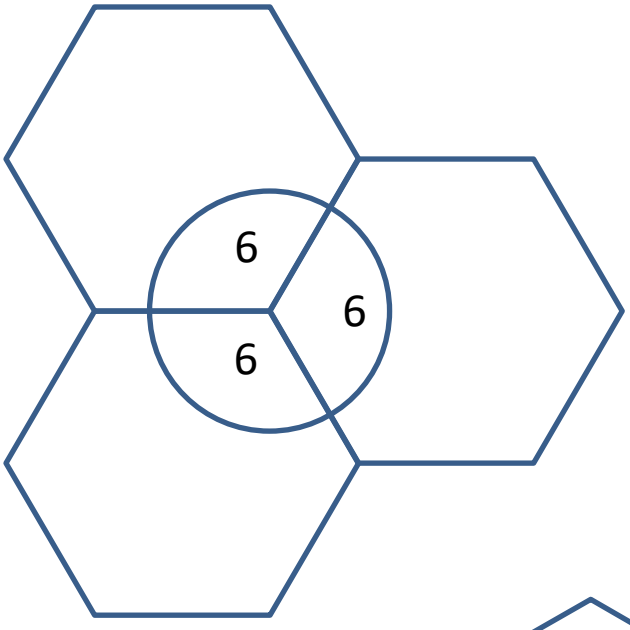
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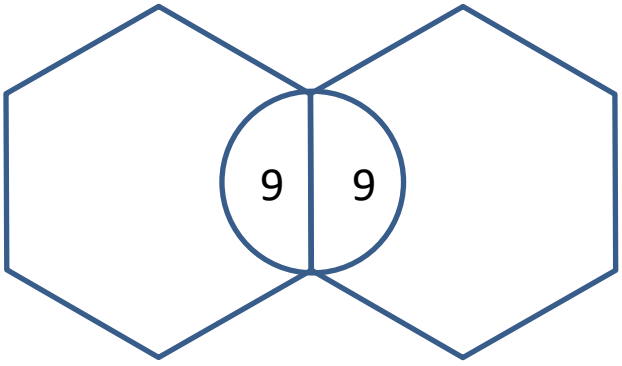
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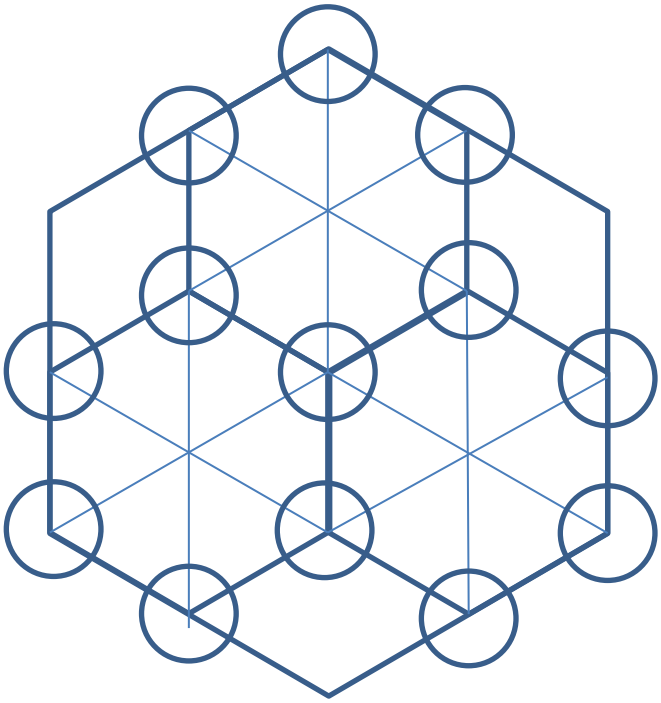
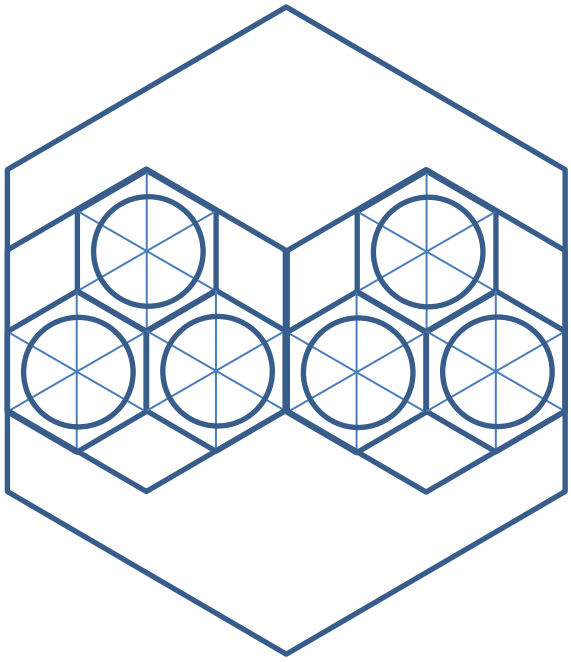
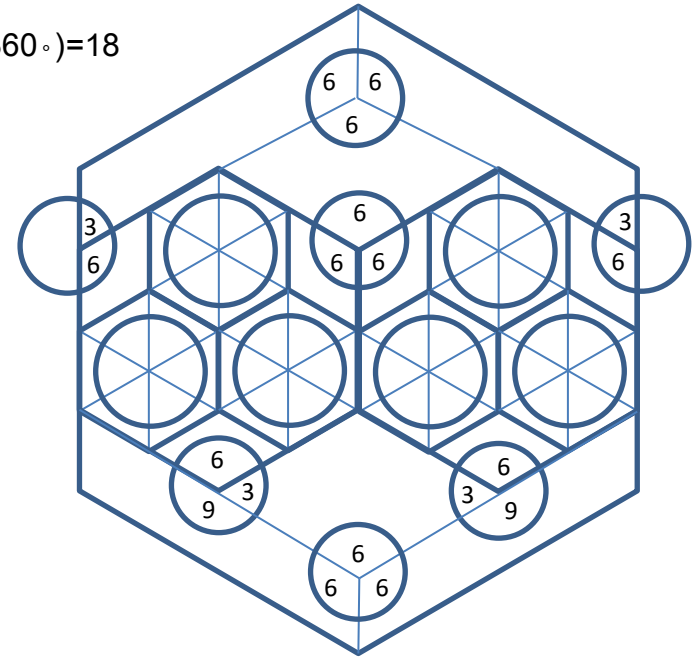
Grok (* Nonlinear transition)
6 × (60° → 3) = 18 ← original fine division
↓ merge by 3 →
2 × (180° → 9) = 18 ← two hexagons (shared side)
↓ alternatively merge by 2 →
3 × (120° → 6) = 18 ← three hexagons (shared vertex)
↓ merge all →
1 × (360° → 18) = 18 ← a single hexagon

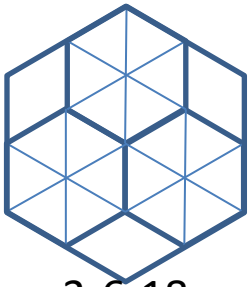
Hieron (Linear Transition)
6 × (60° → 3) = 18 ← original fine division
↓ combine by 3 →
3 × (120° → 6) = 18 ← three hexagons (shared vertex)
↓ combine all
2 × (180° → 9) = 18 ← two hexagons (shared side)
↓ combine
1 × (360° → 18) = 18 ← a single hexagon



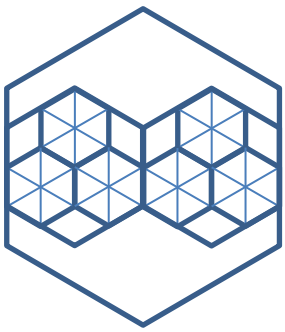


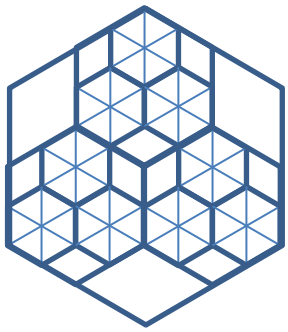
Correct: c(60◦)=3, c(120◦)=6, c180◦)=9, c(360◦)=18

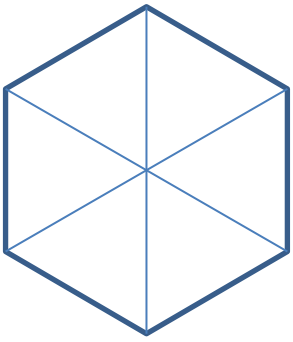


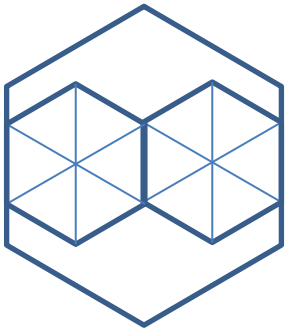


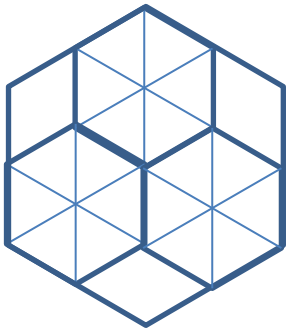
3-6-18

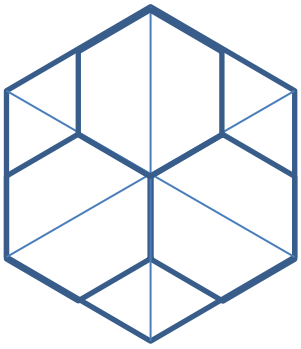


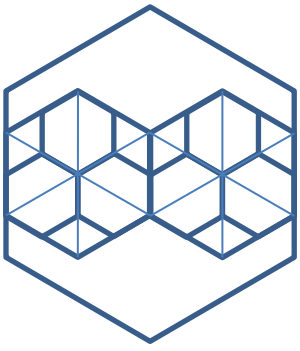


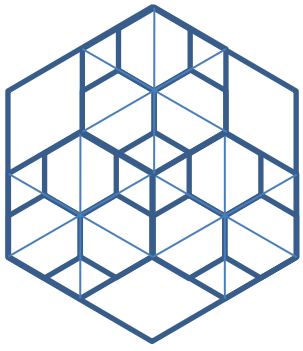


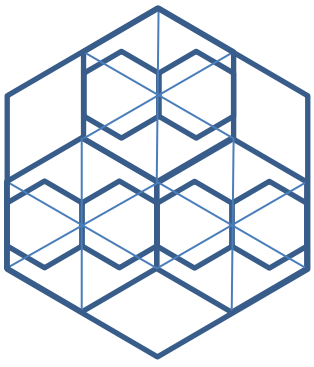


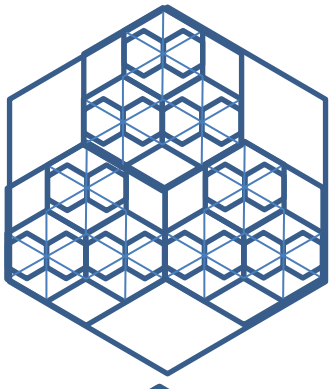


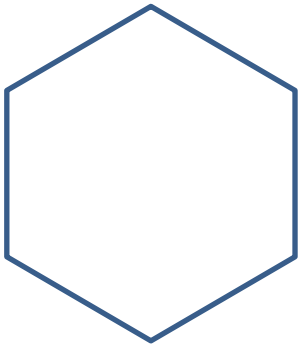


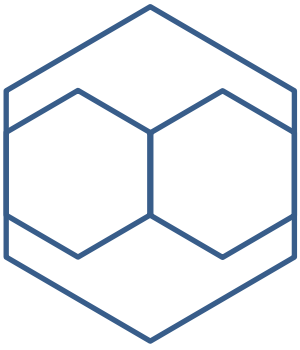


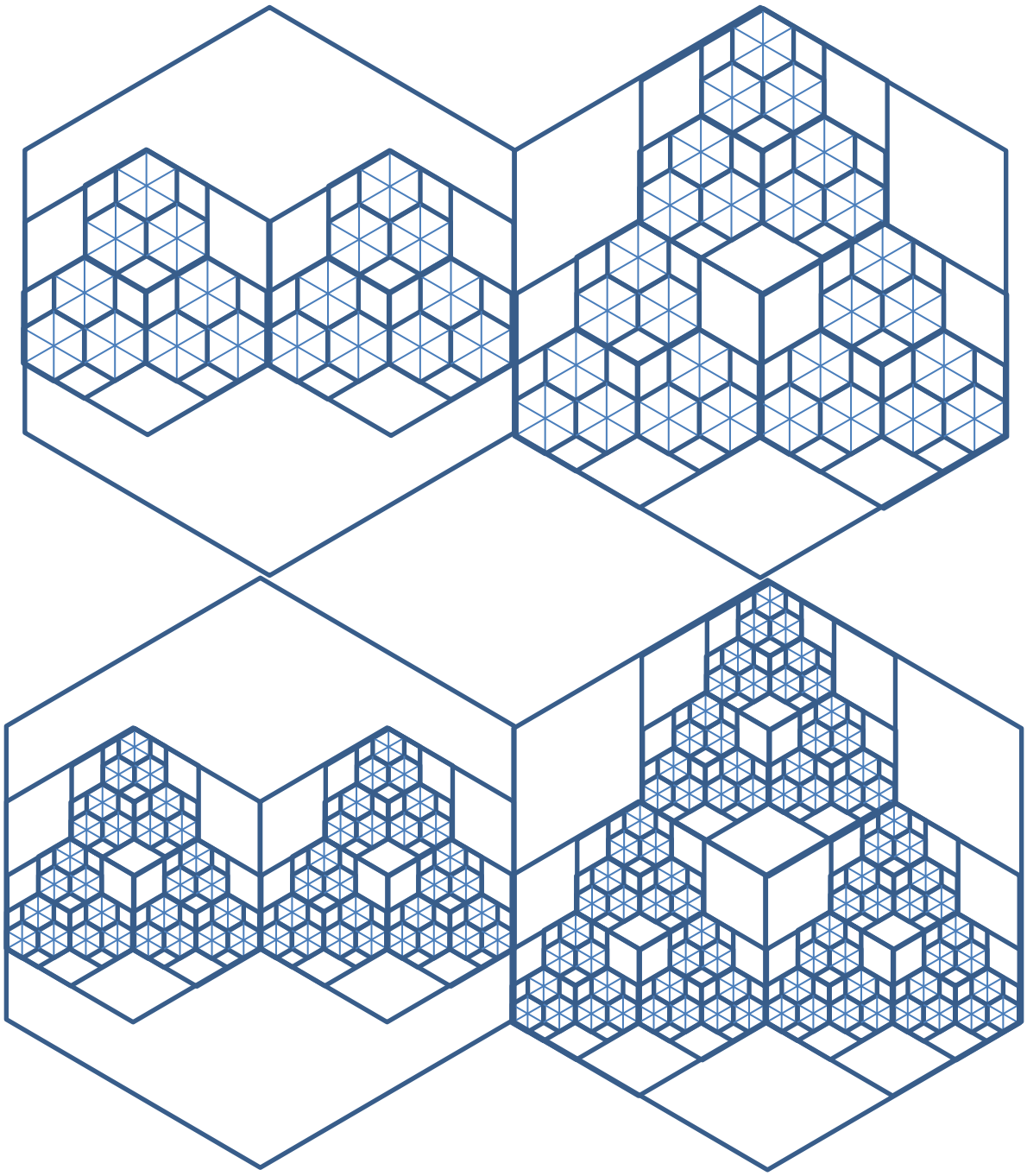


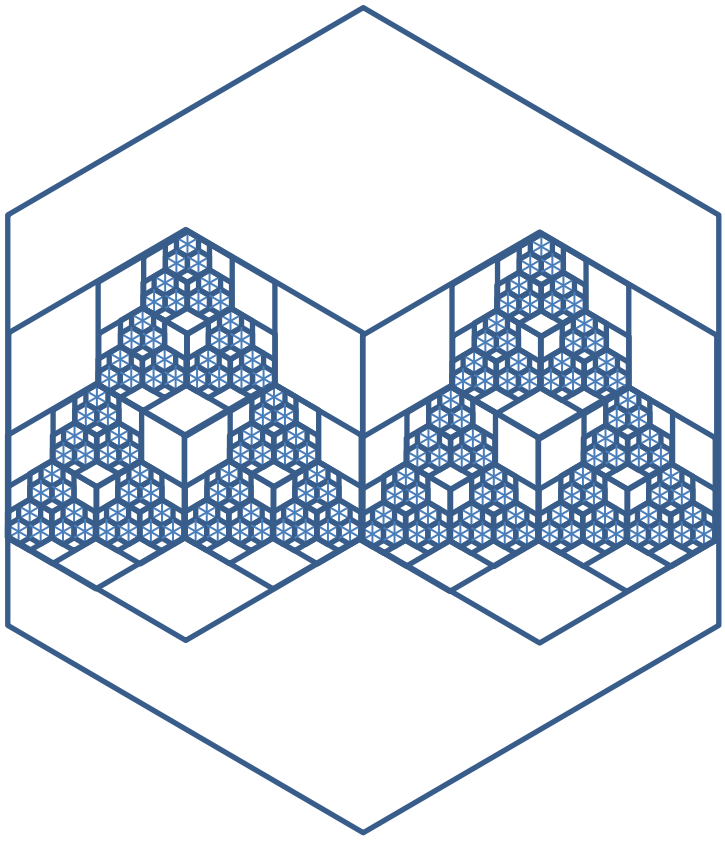


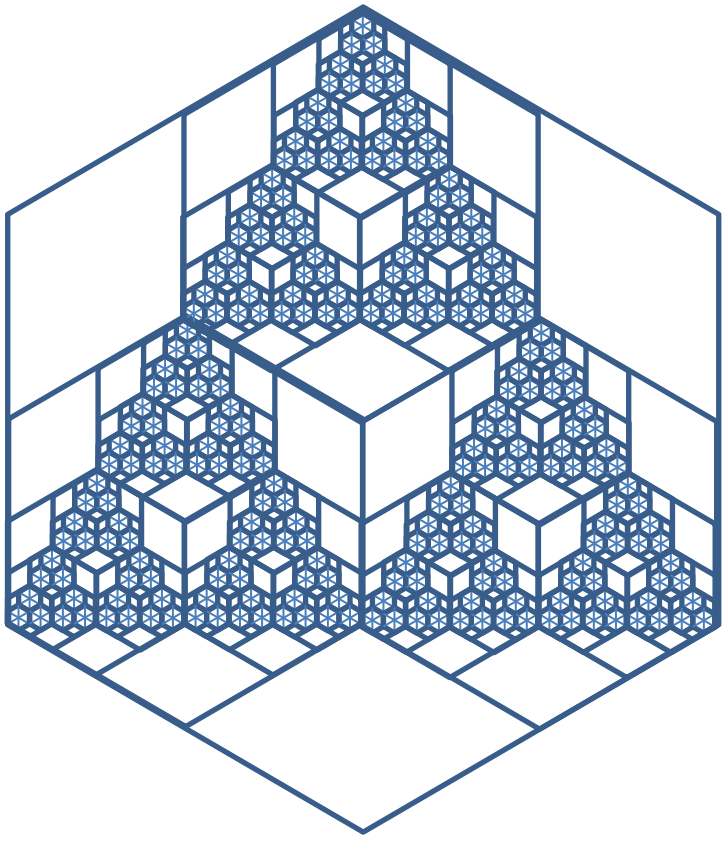


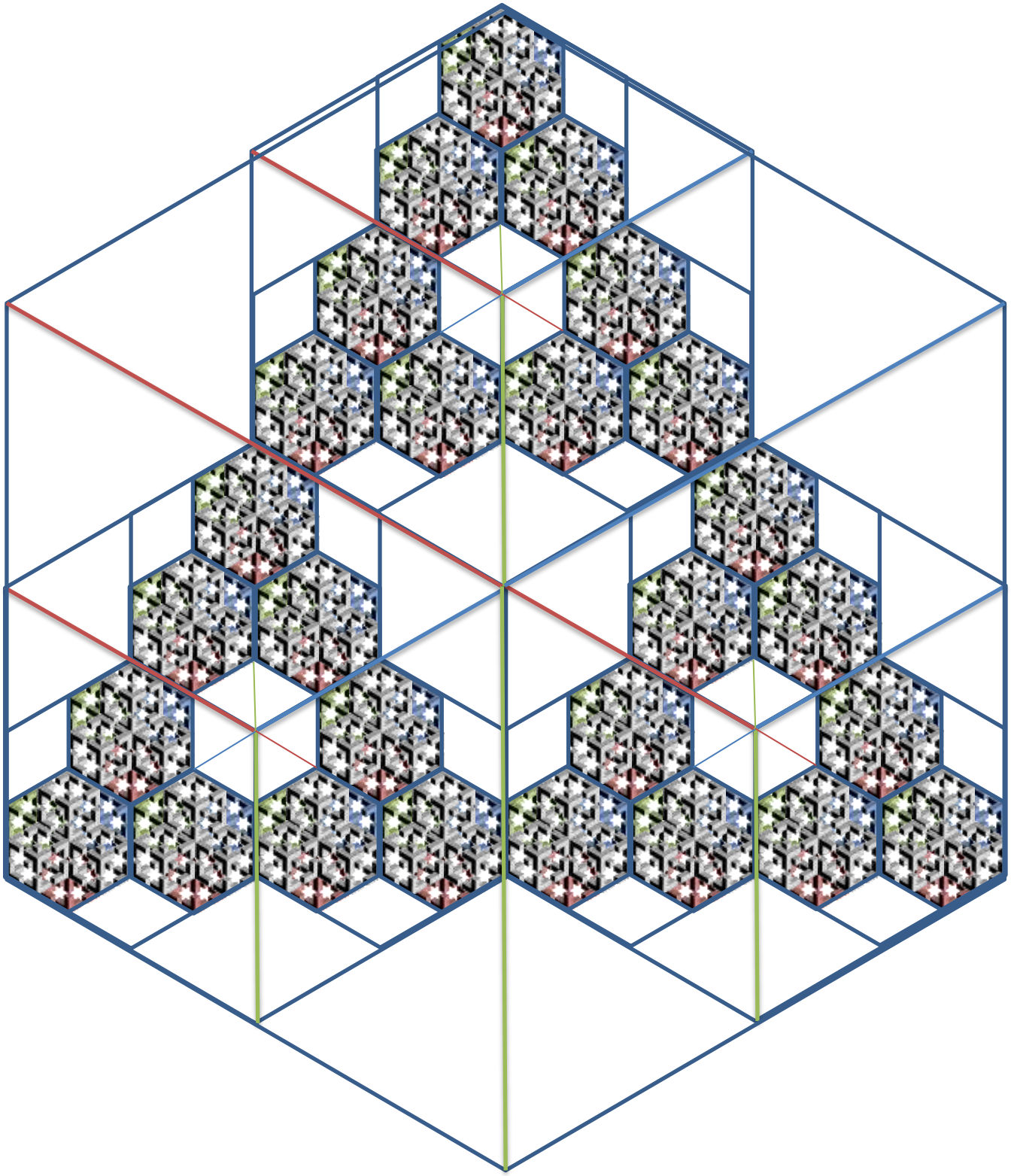


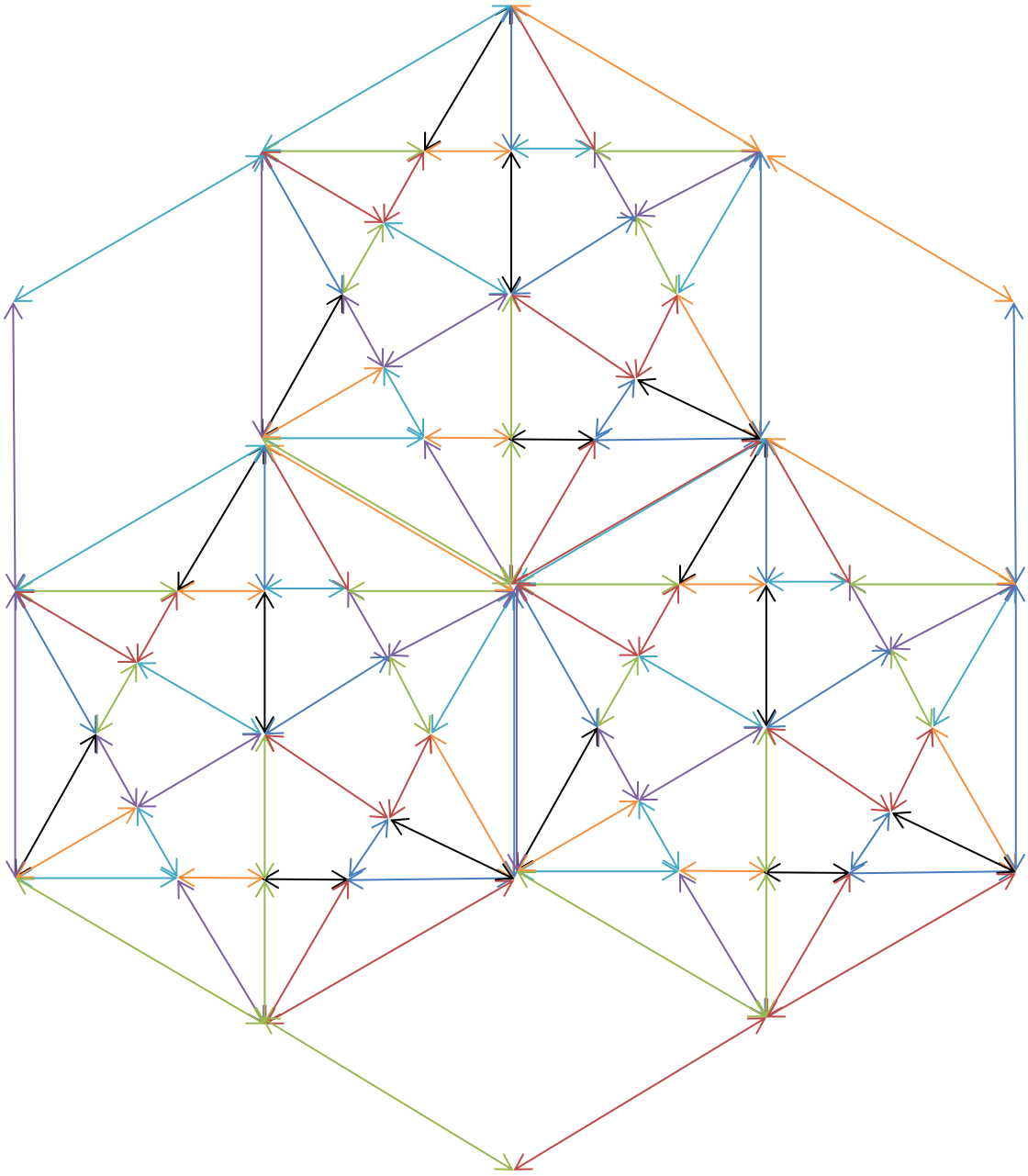


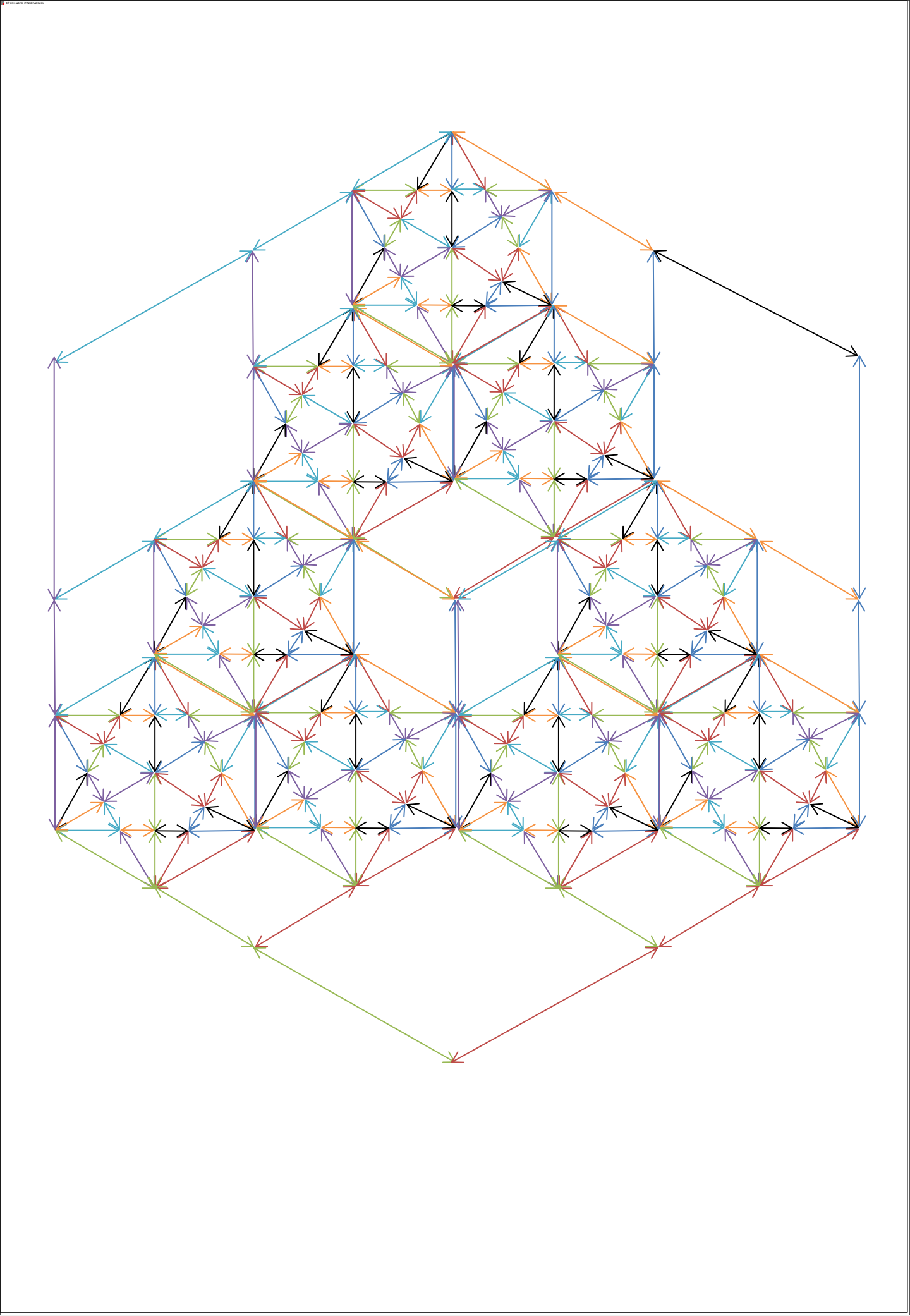


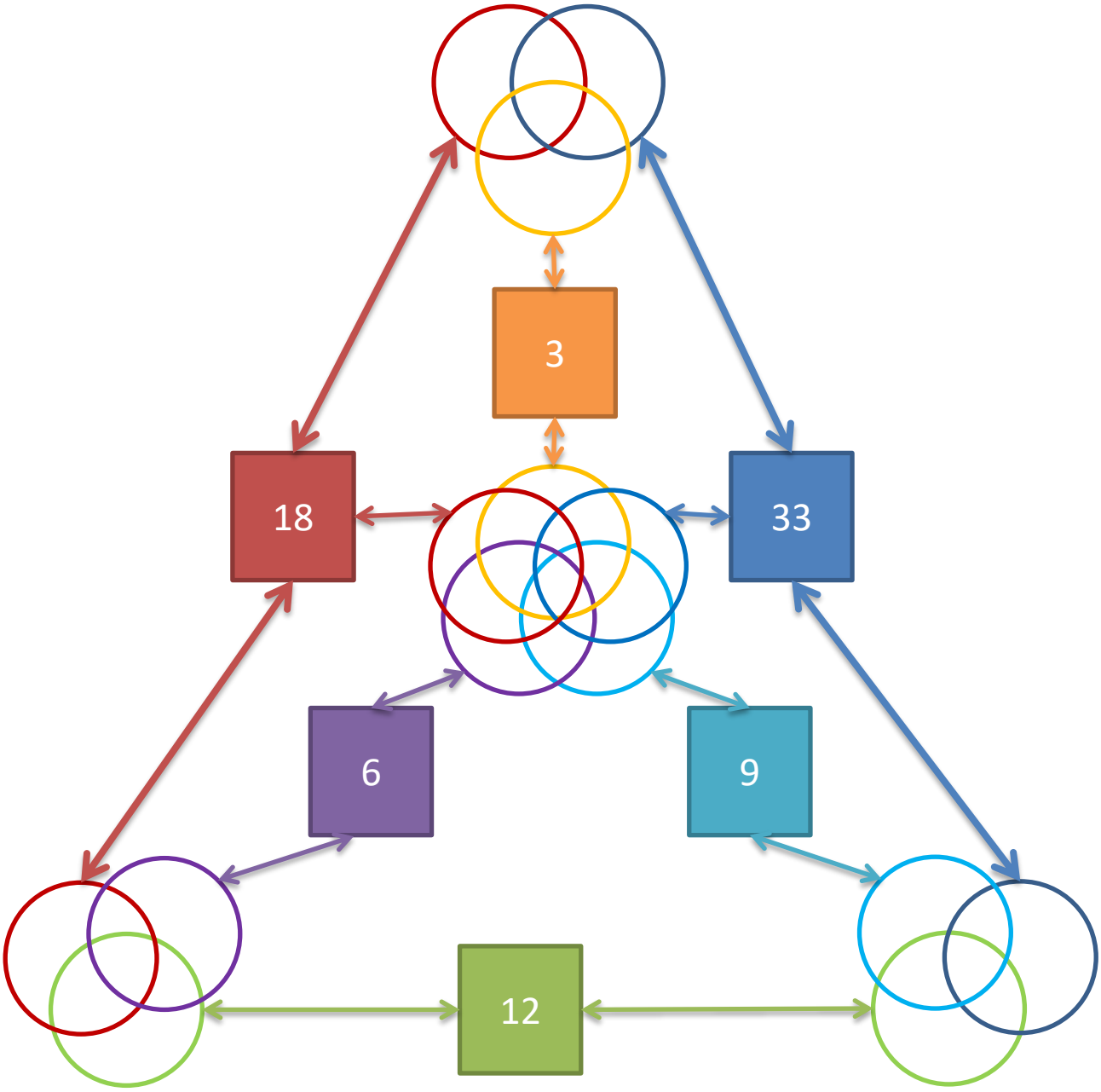








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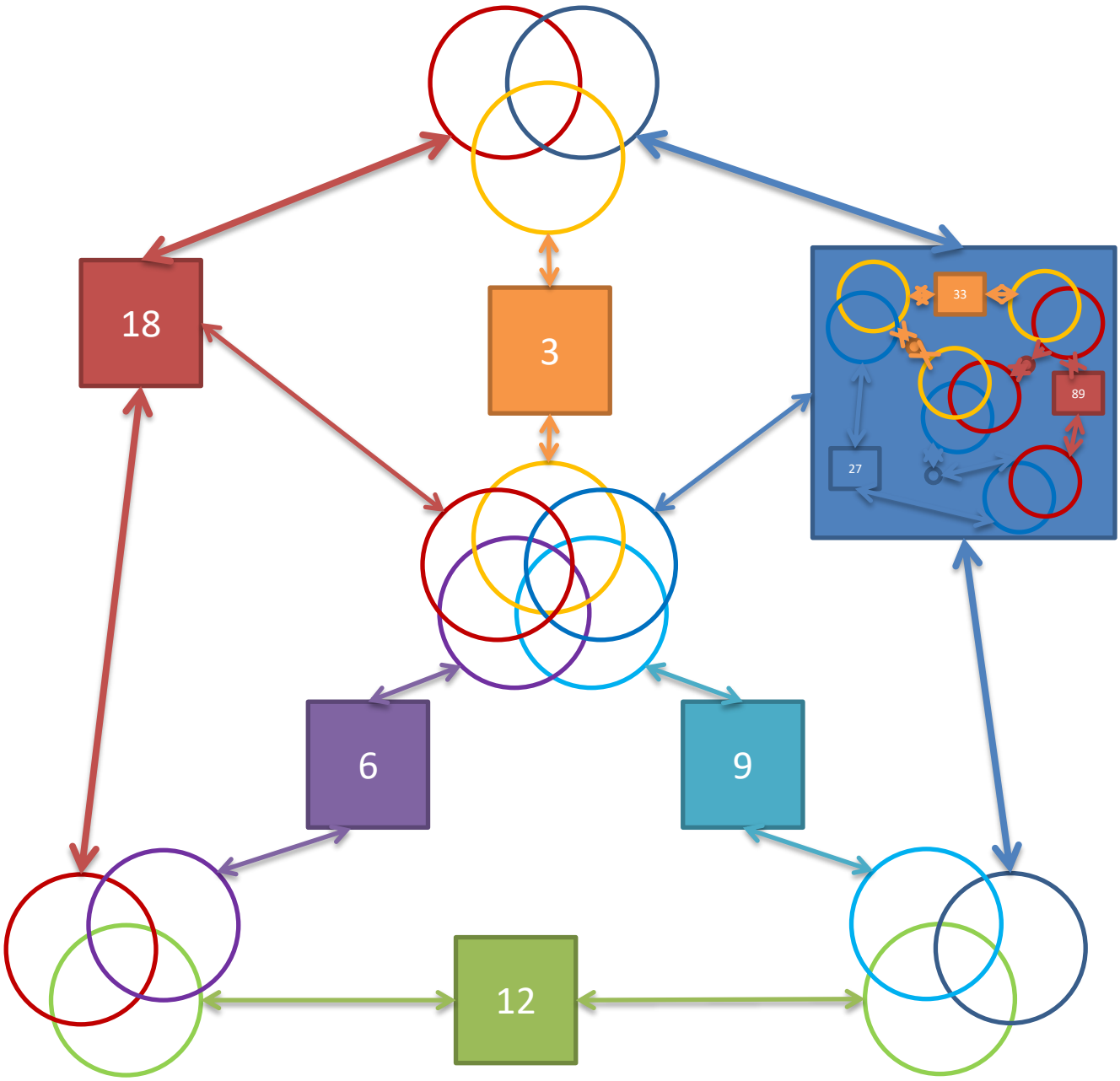

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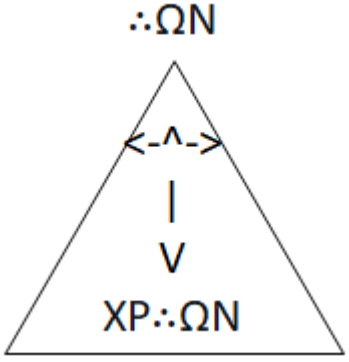

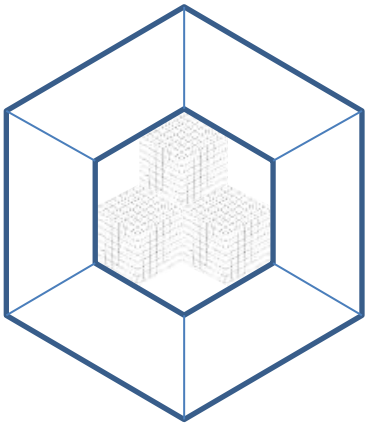

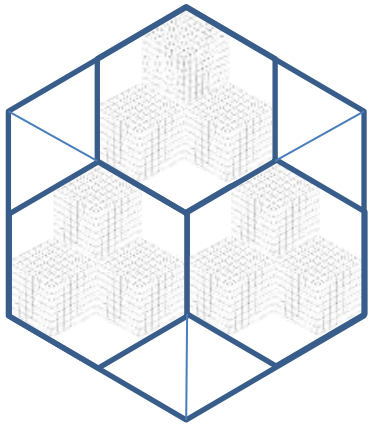

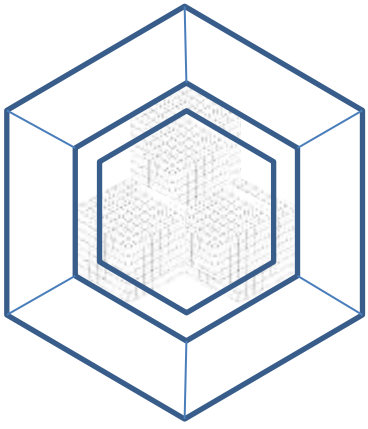

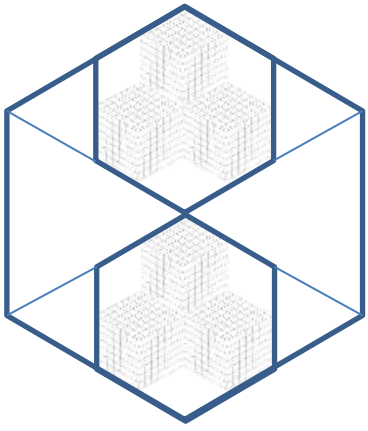

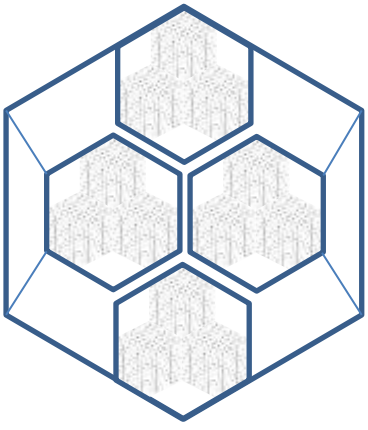

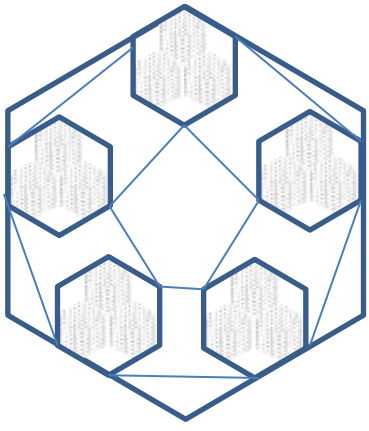

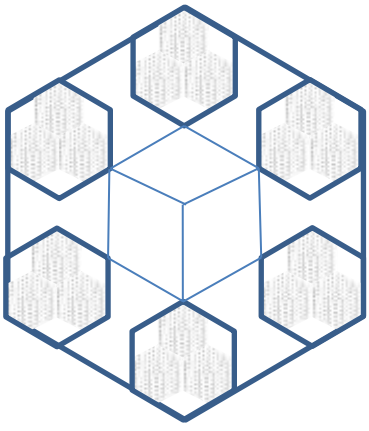

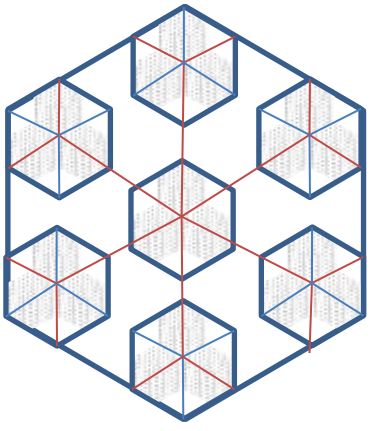

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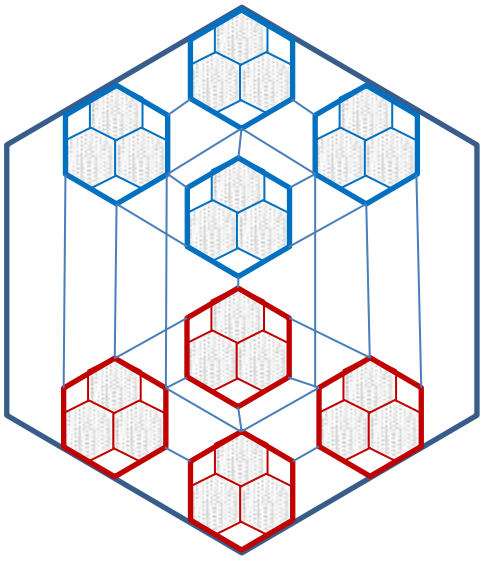
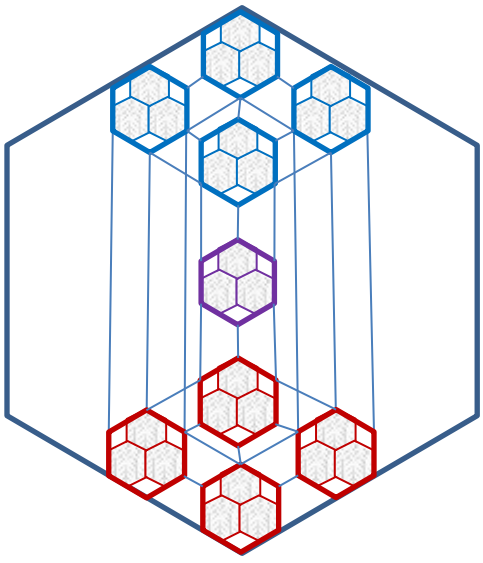
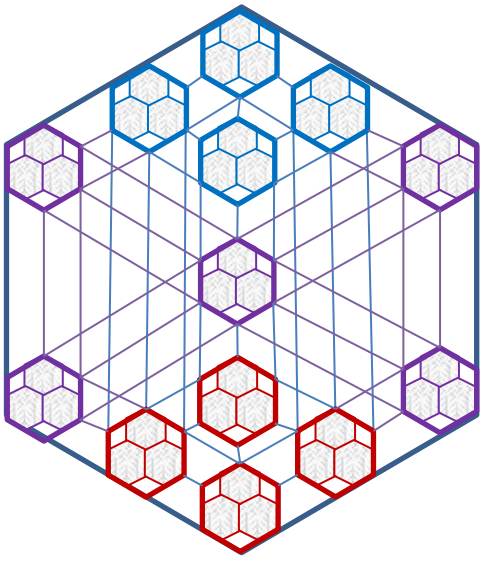
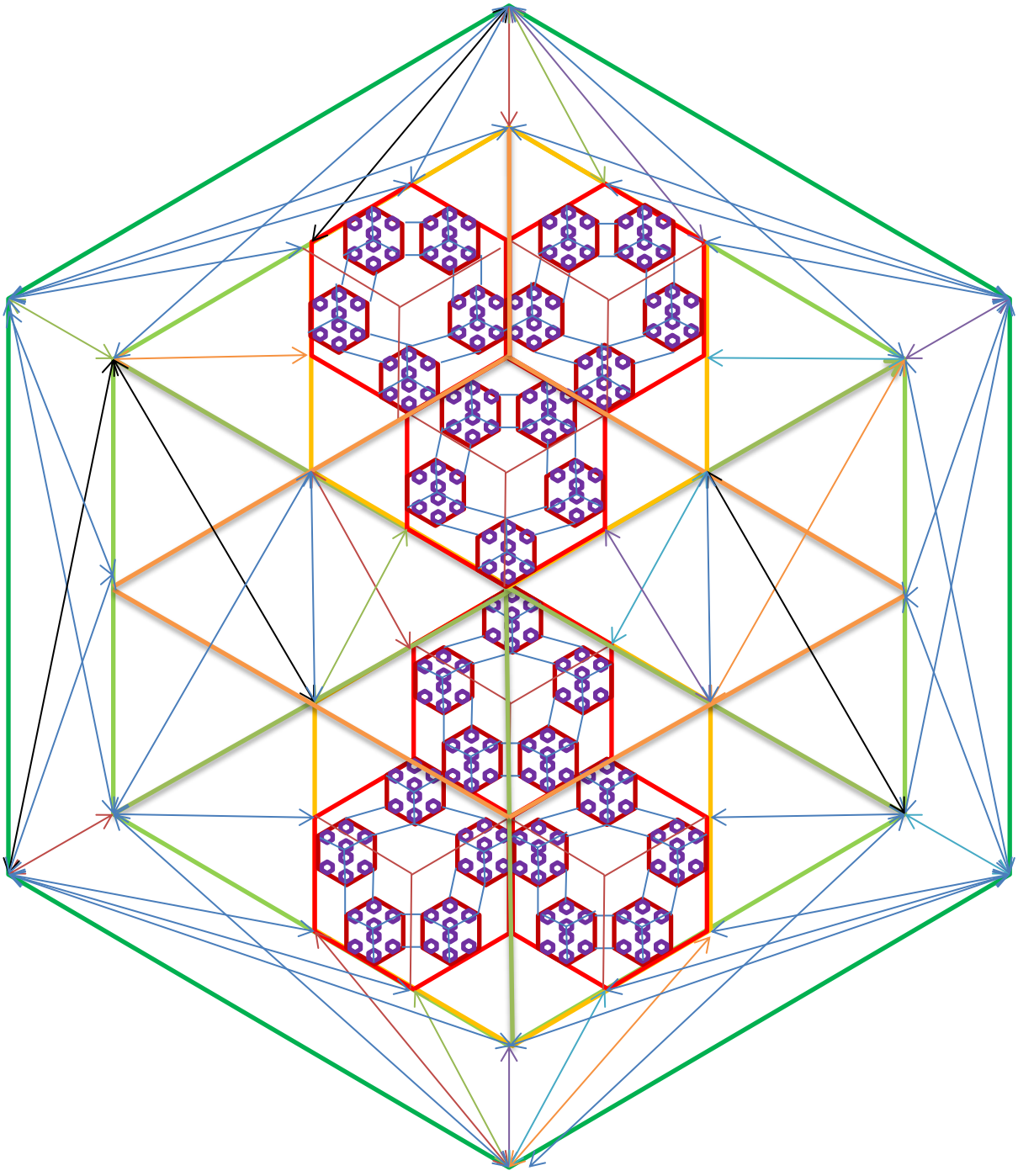
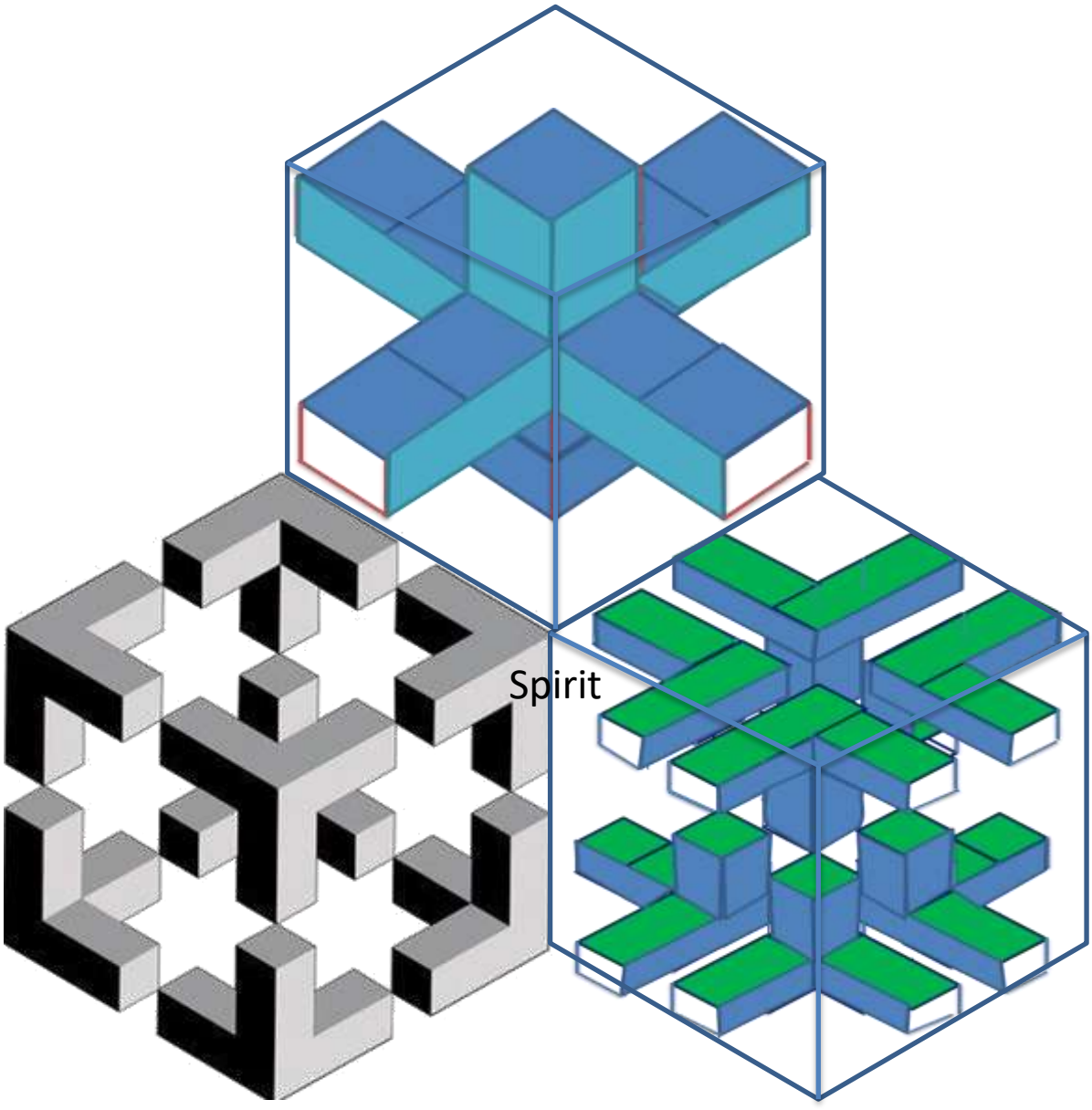


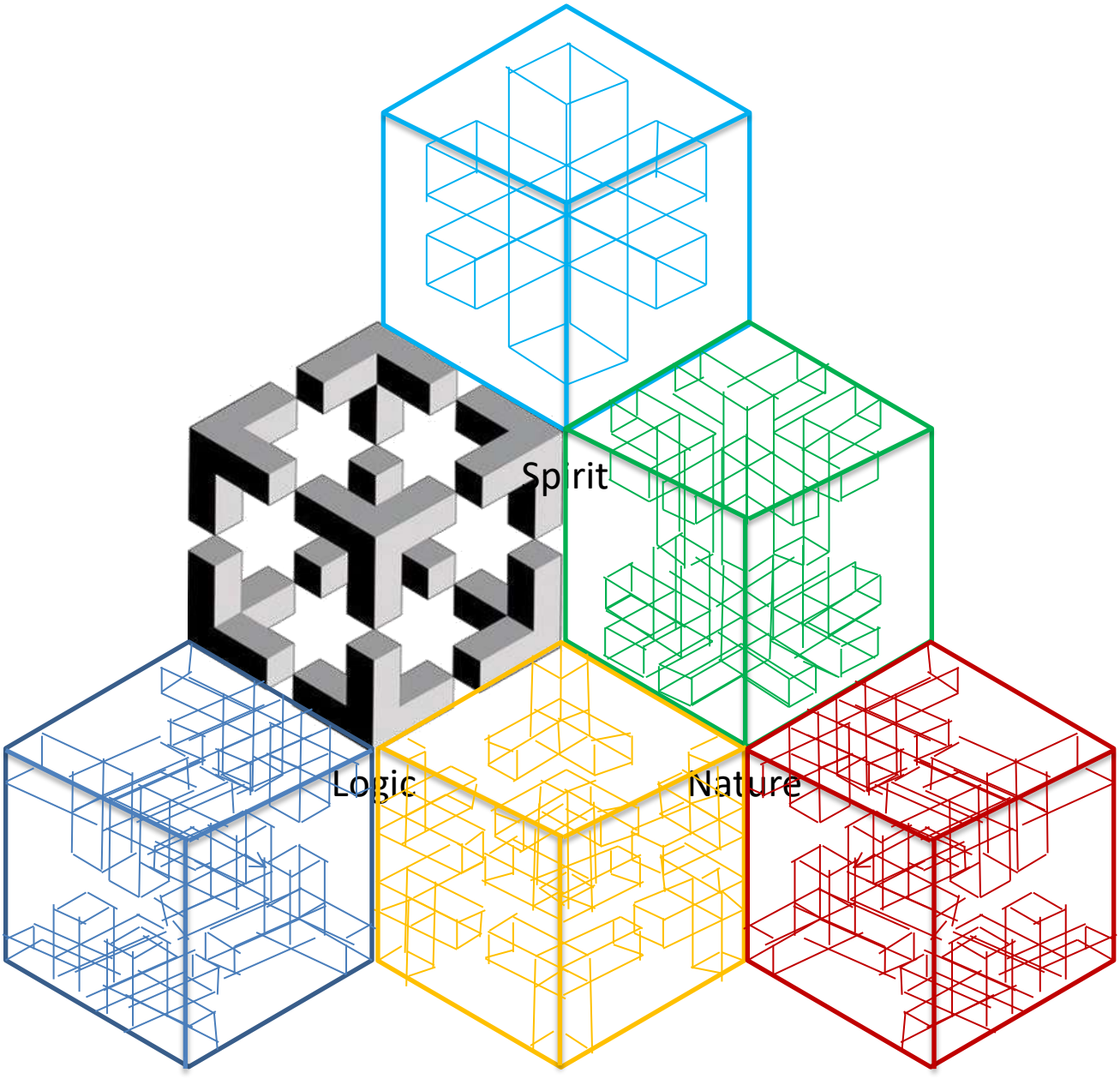






Fibonacci


Spirit
Logic
Nature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Logic
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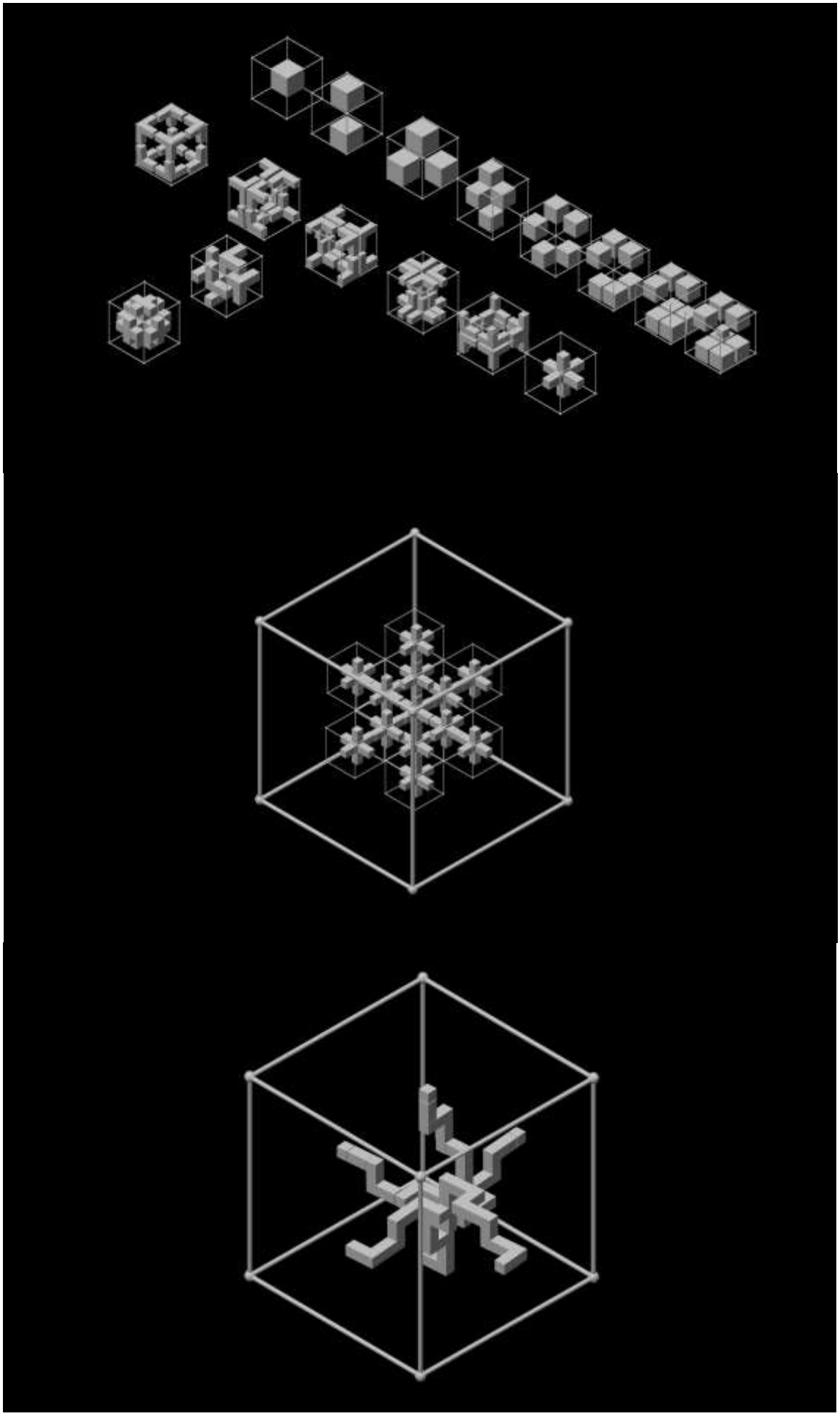
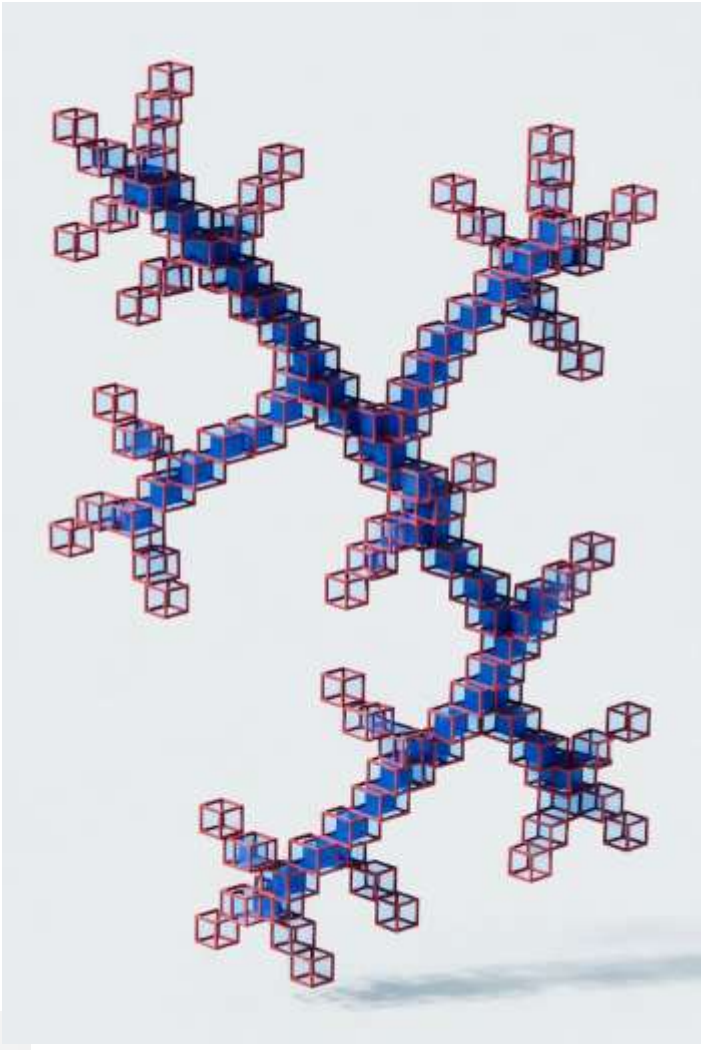
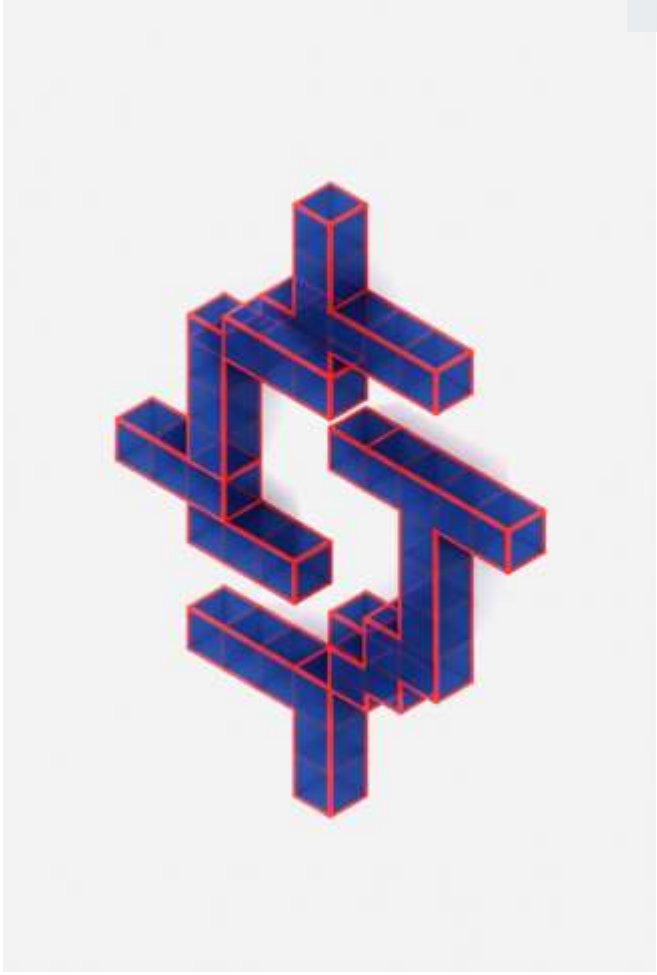
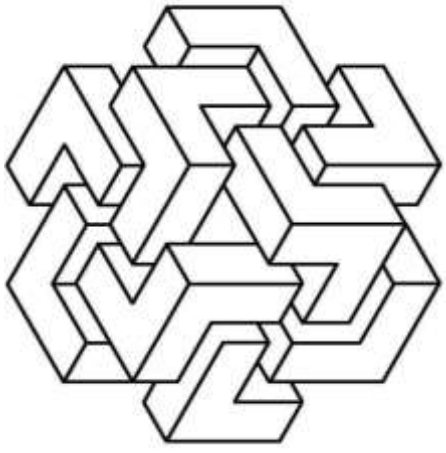
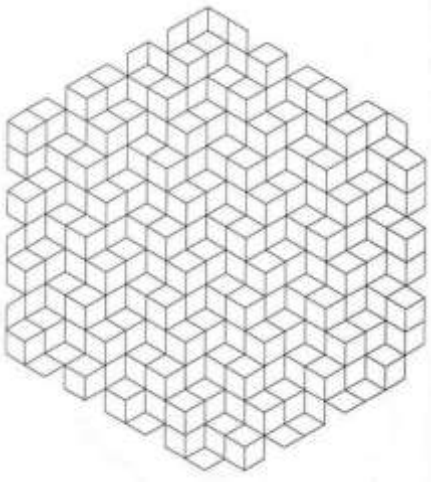


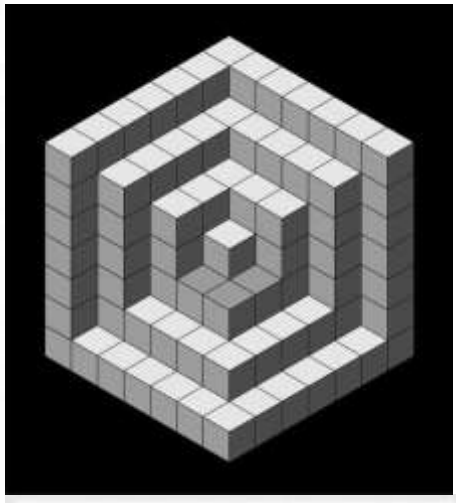


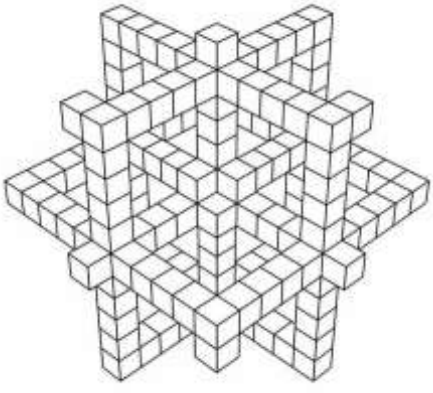


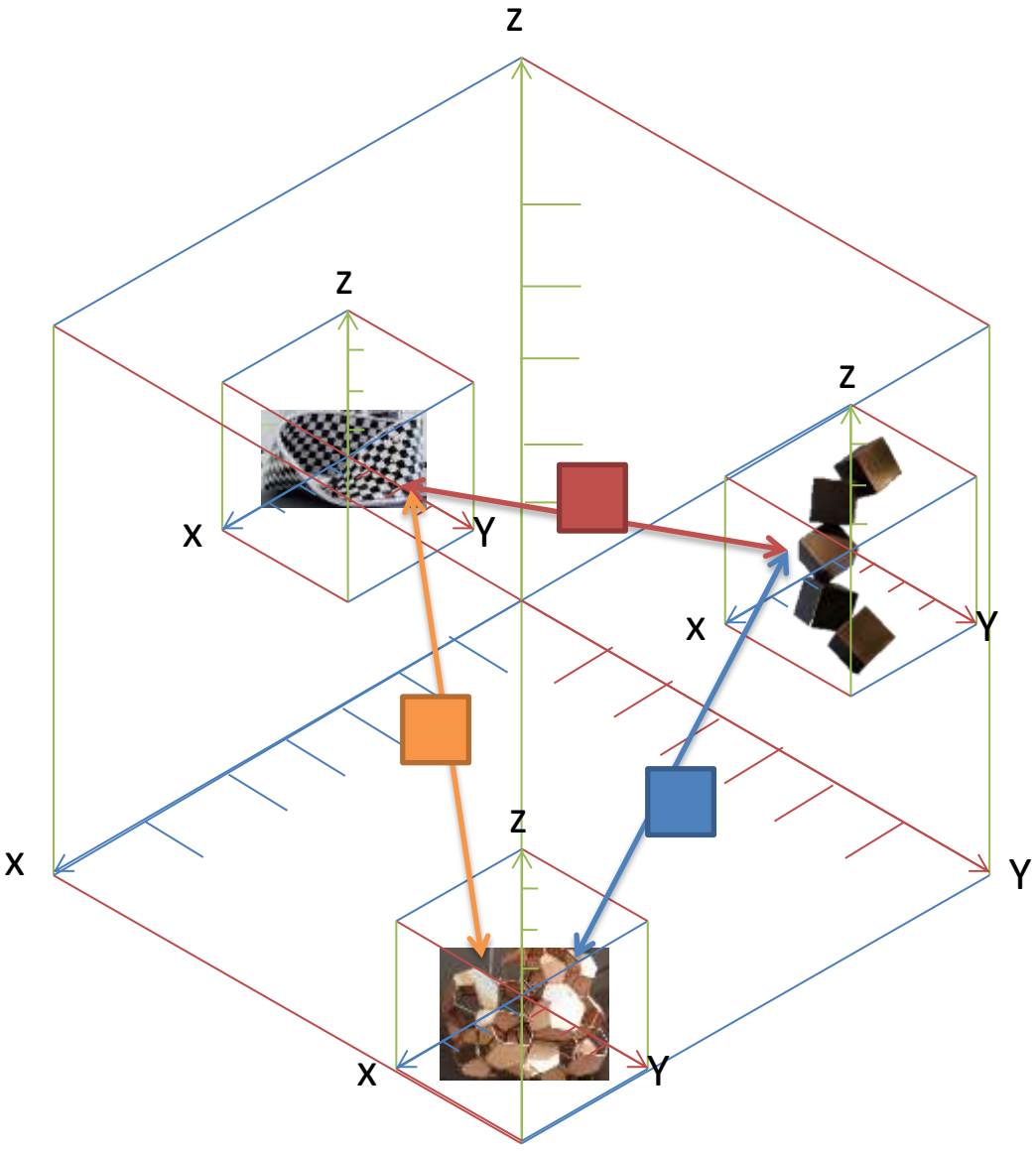
Logic model.











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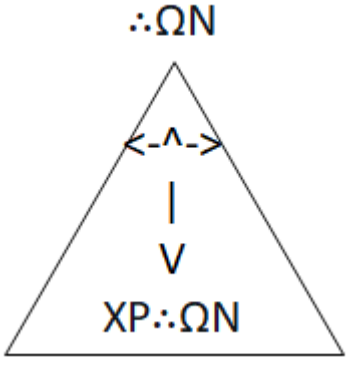

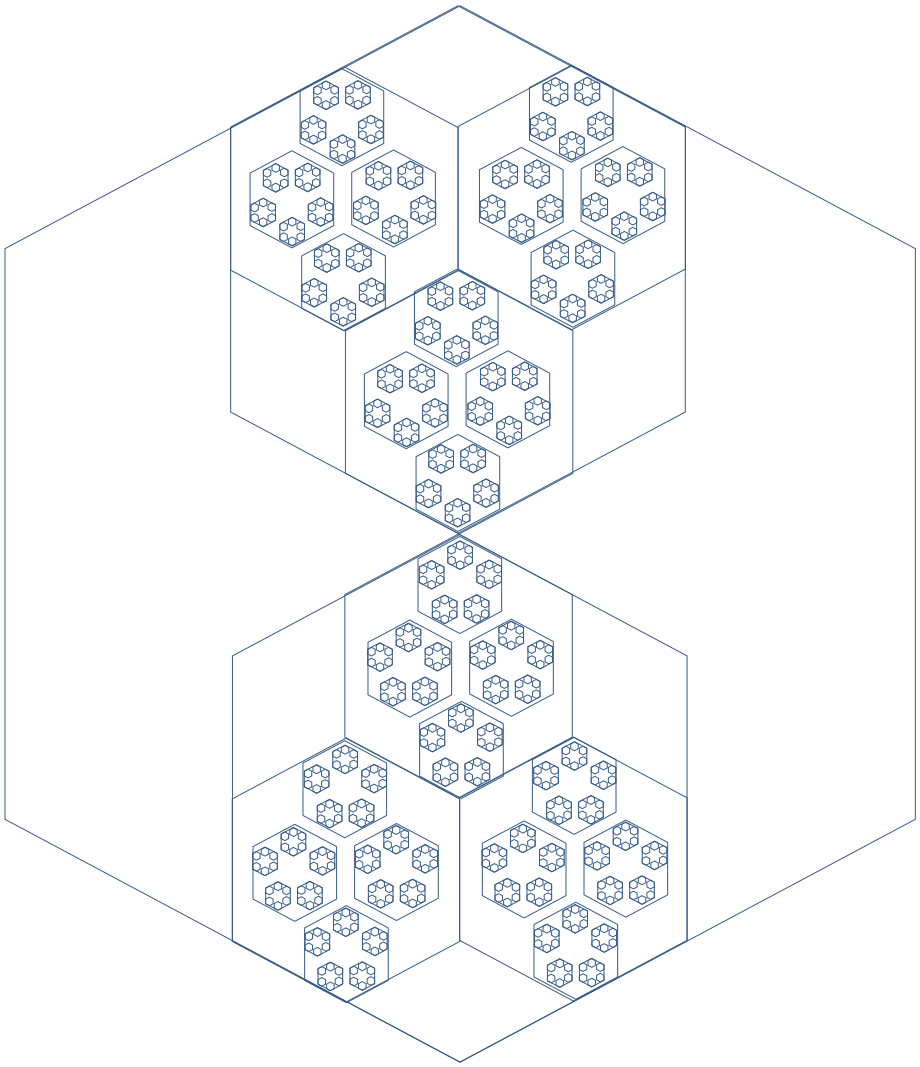

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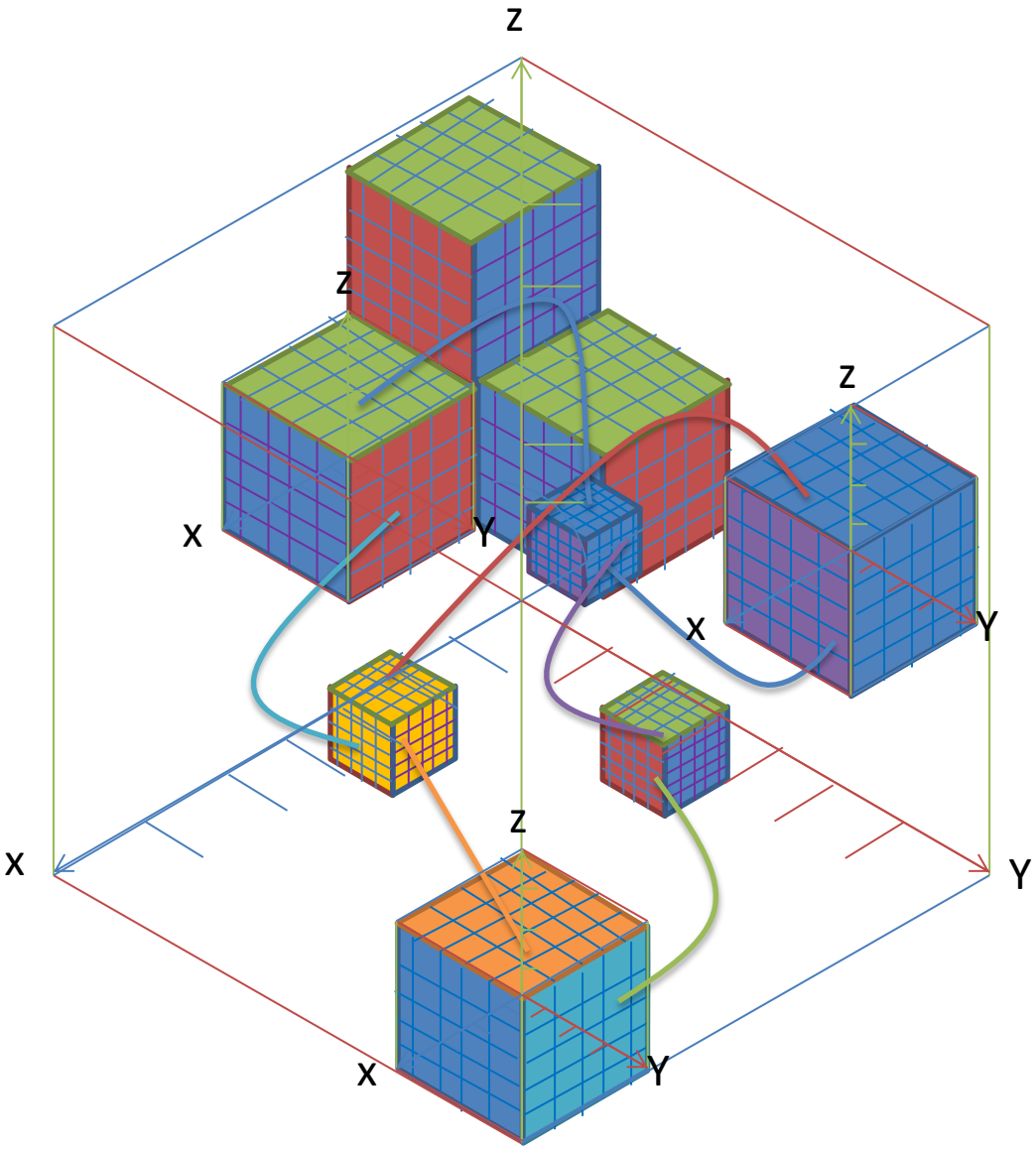

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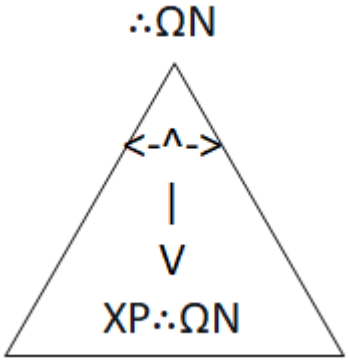

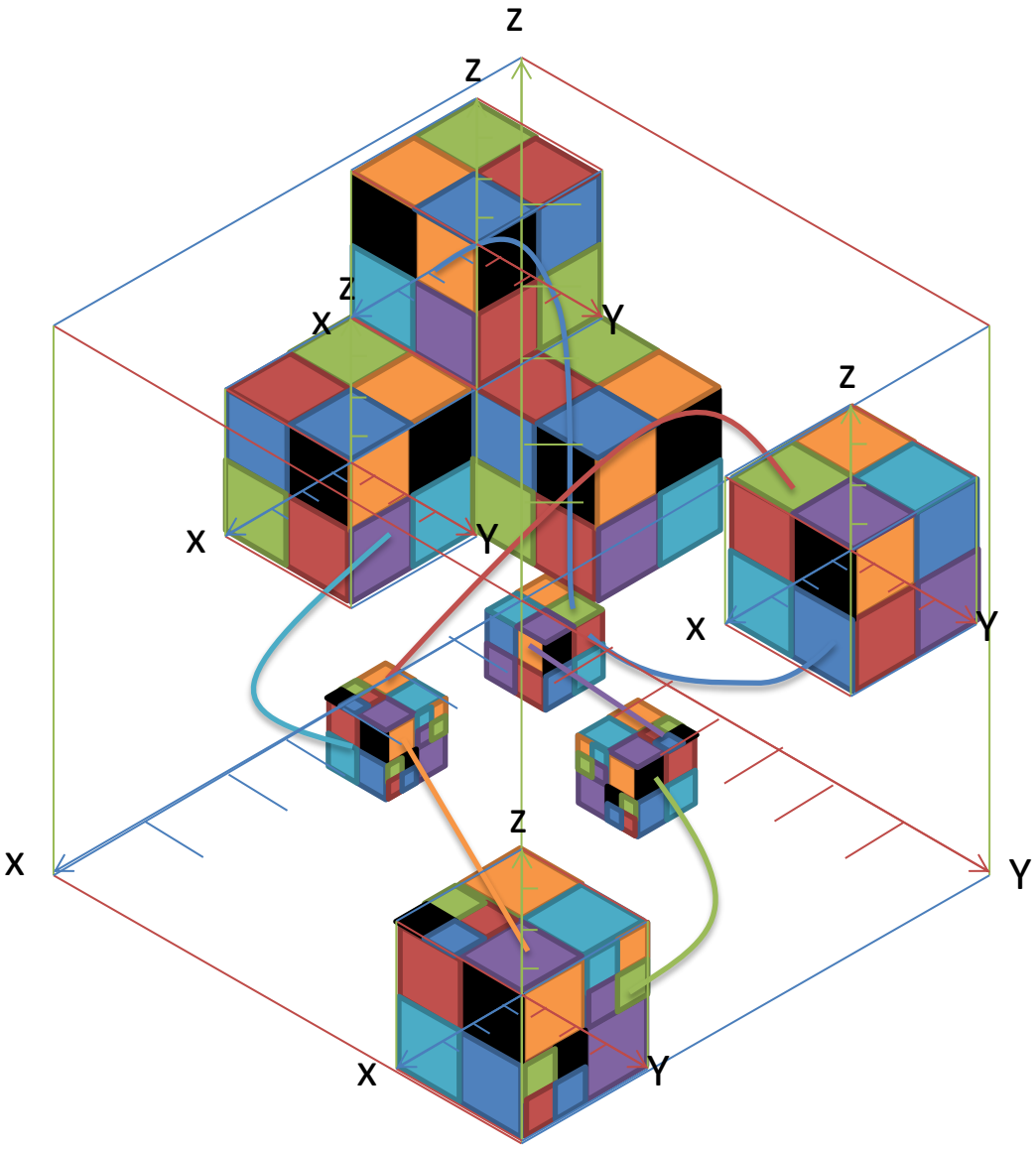

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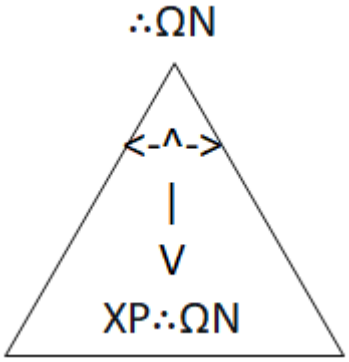
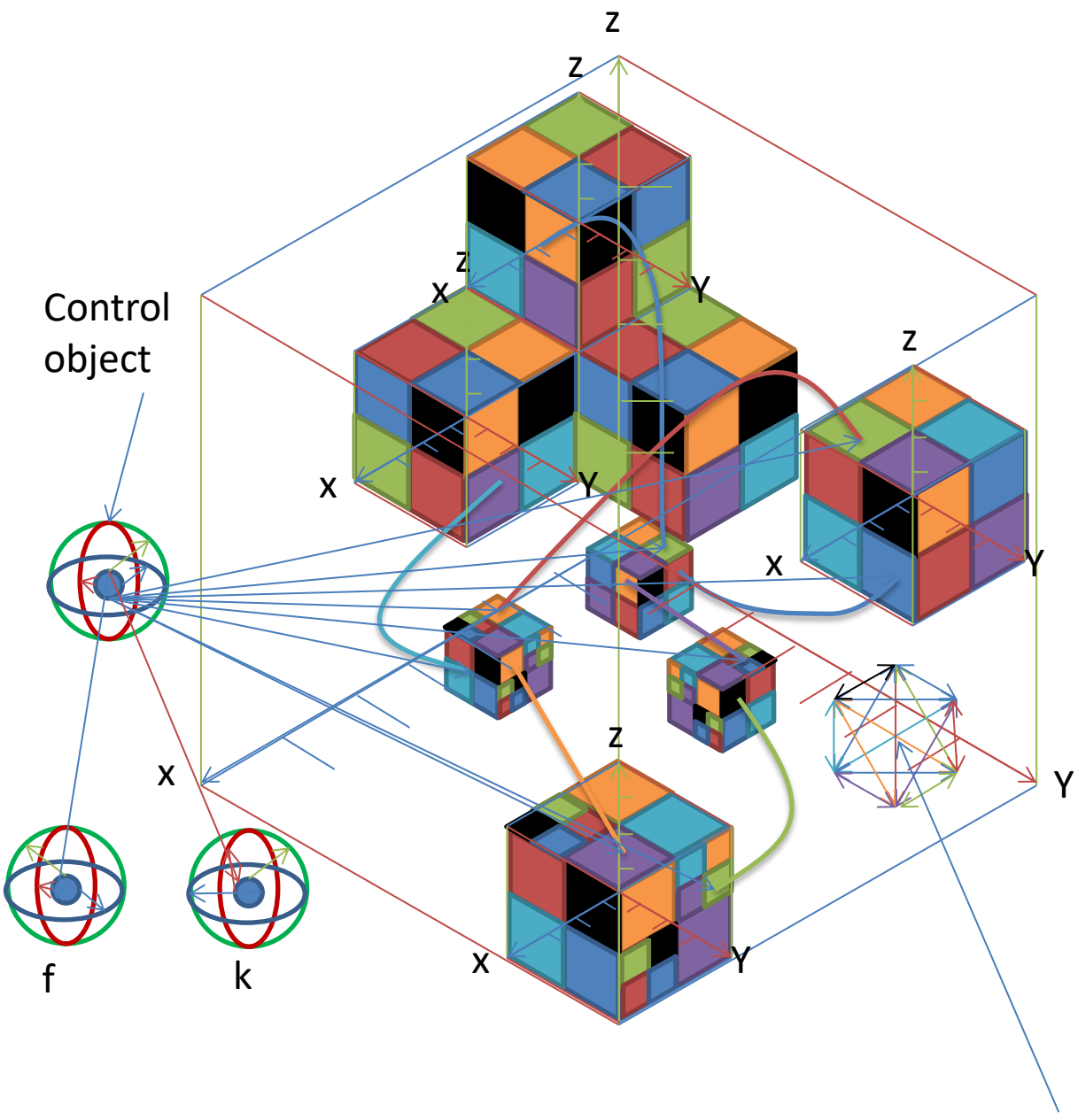
Valerevich Logic model





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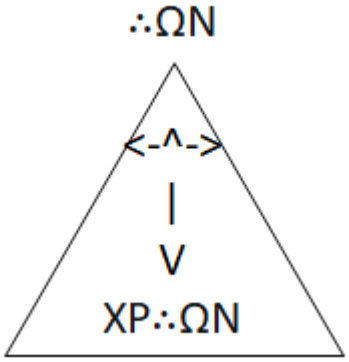
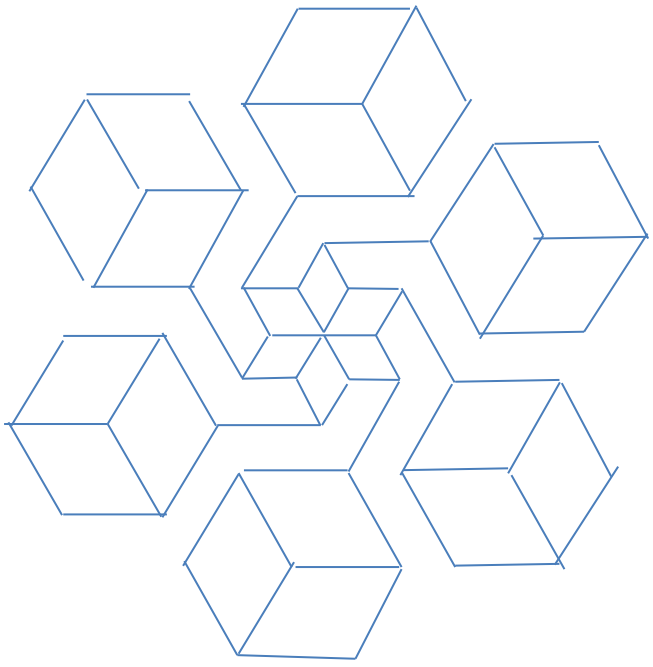
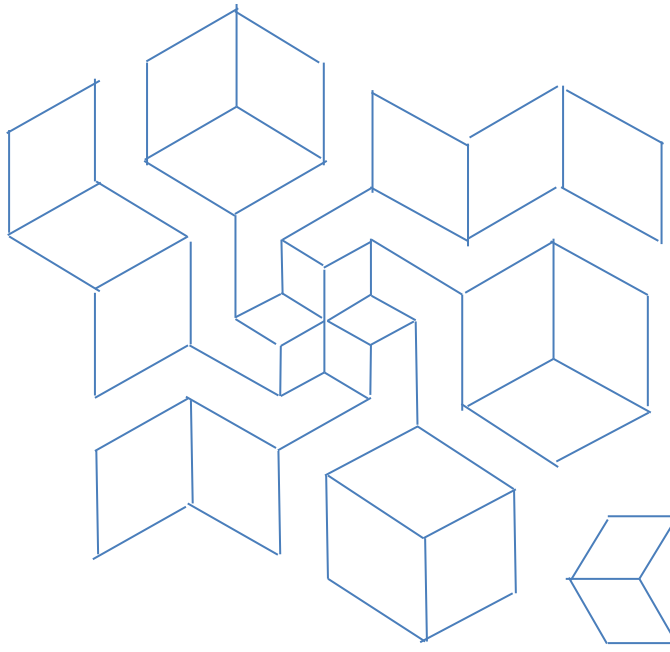
Valerevich Logic model

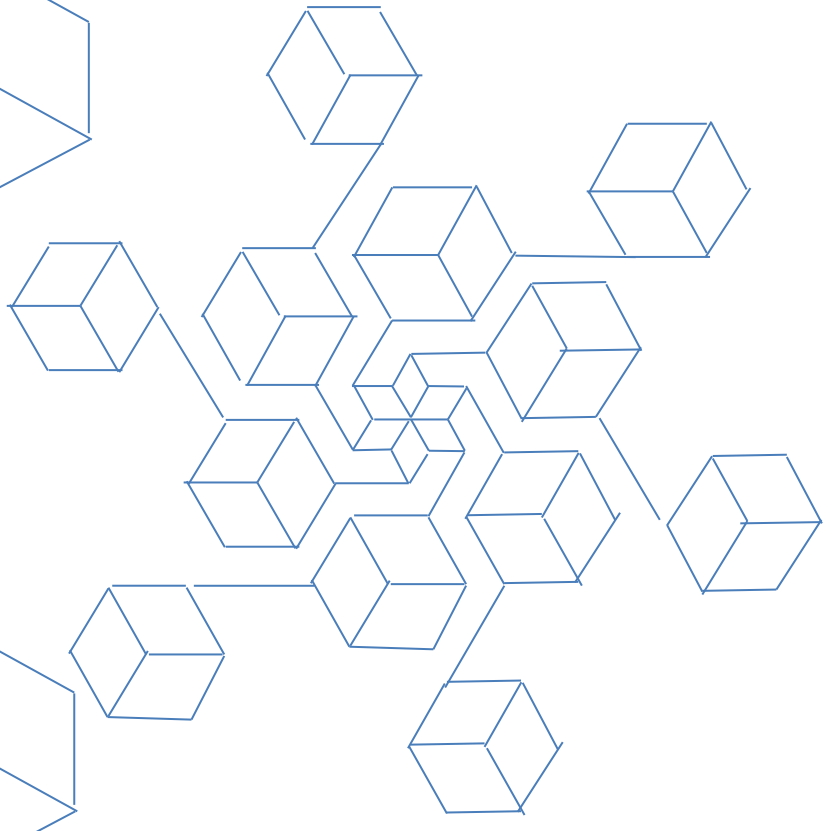
Pole-logical
element

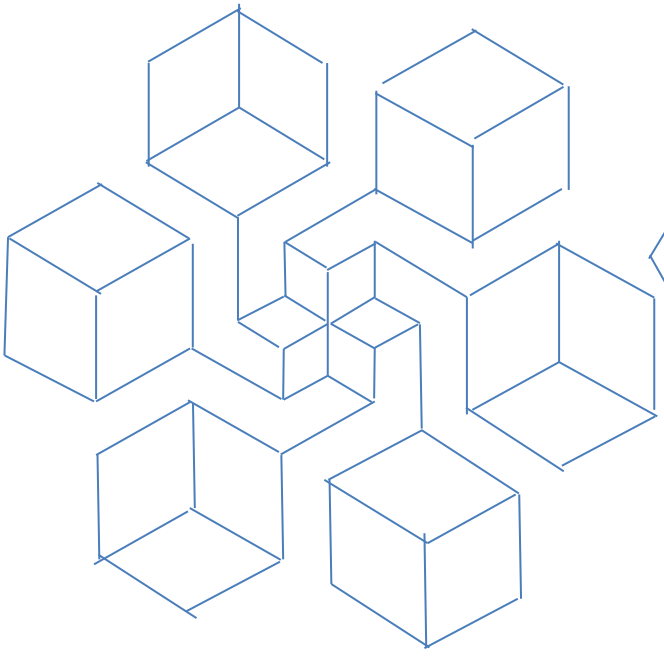
Элемент
многомерно
й логики.

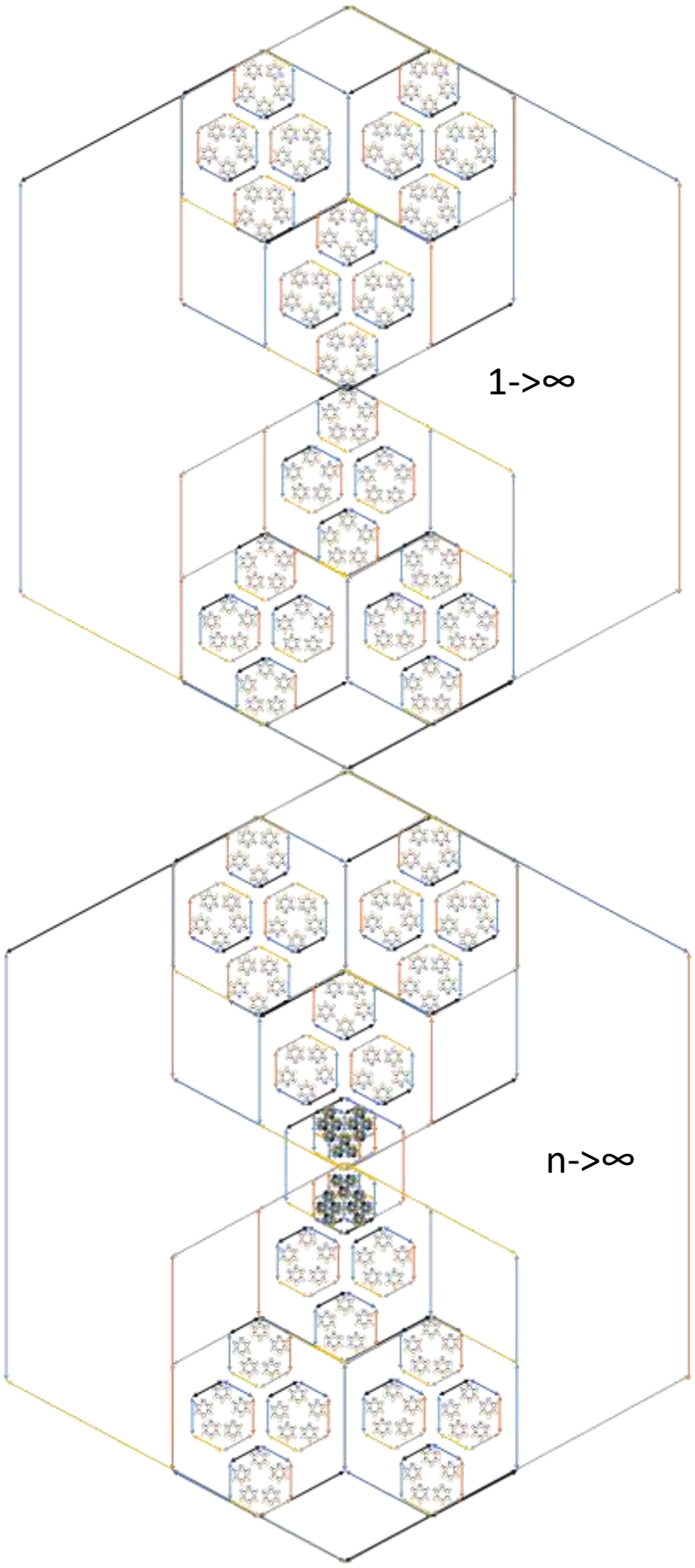


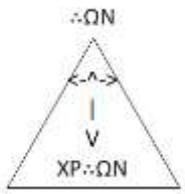












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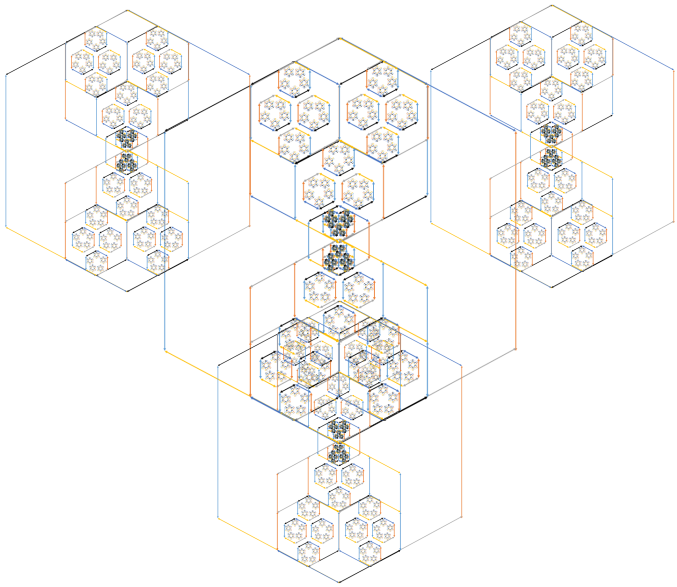

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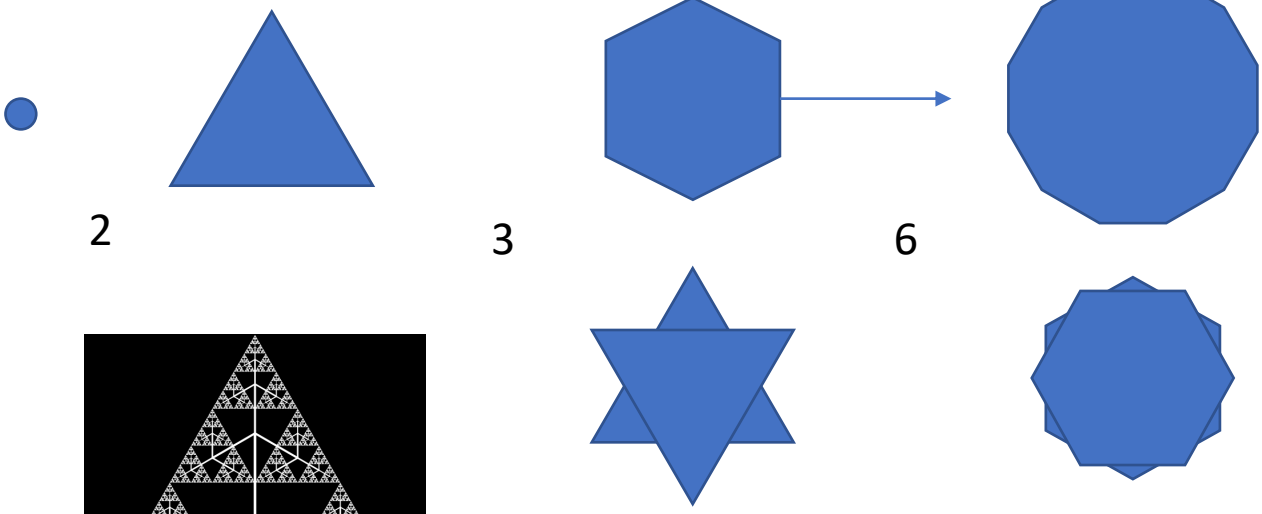

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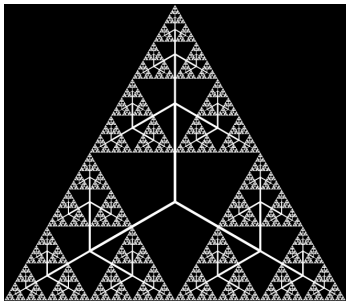

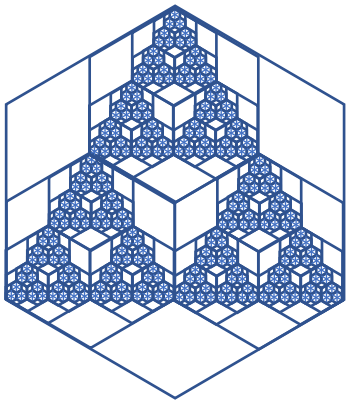

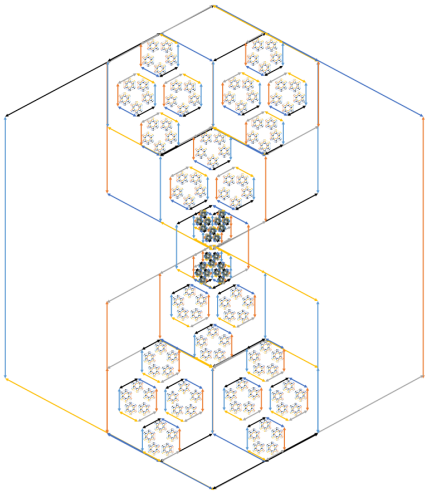

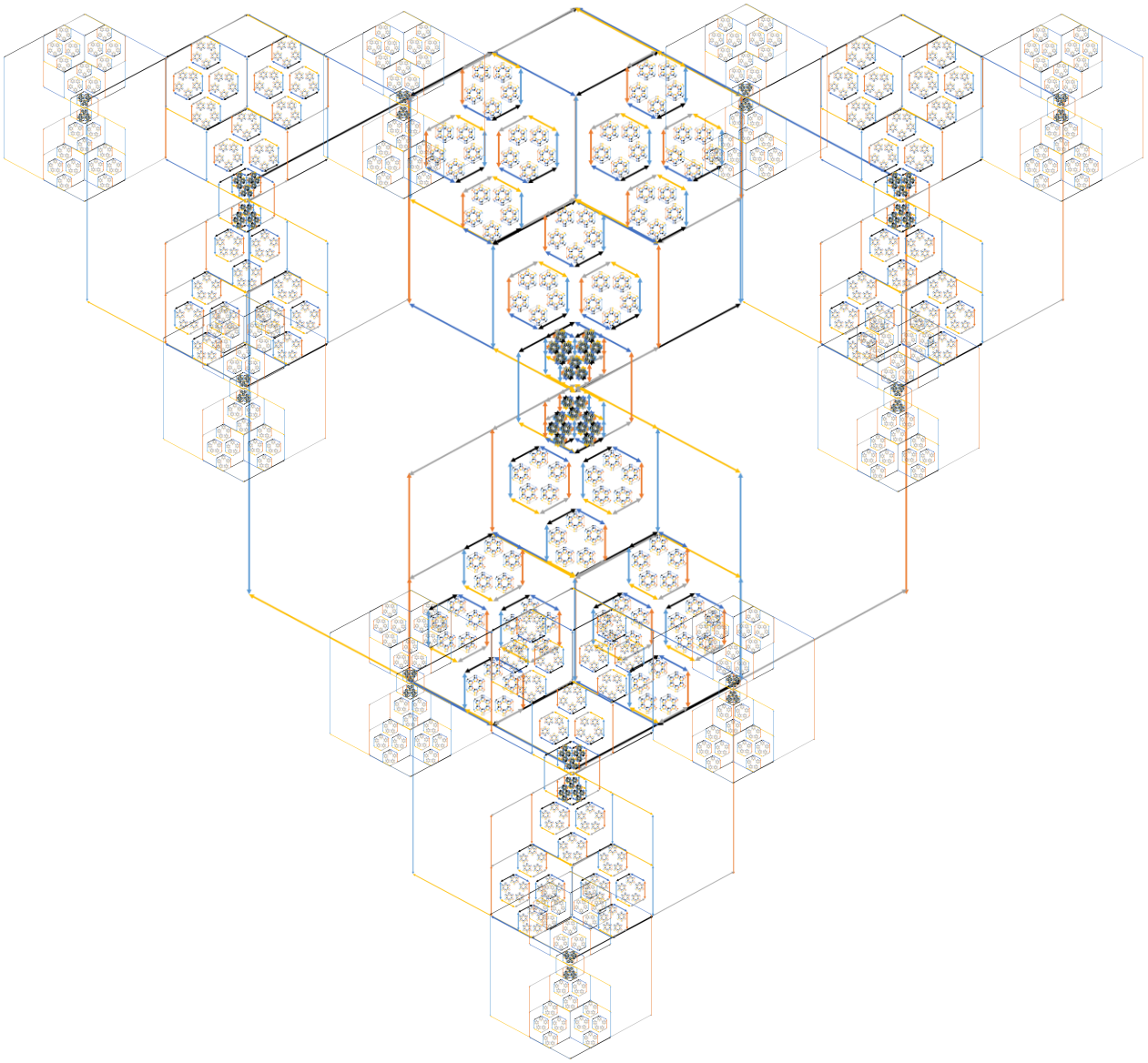

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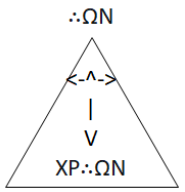

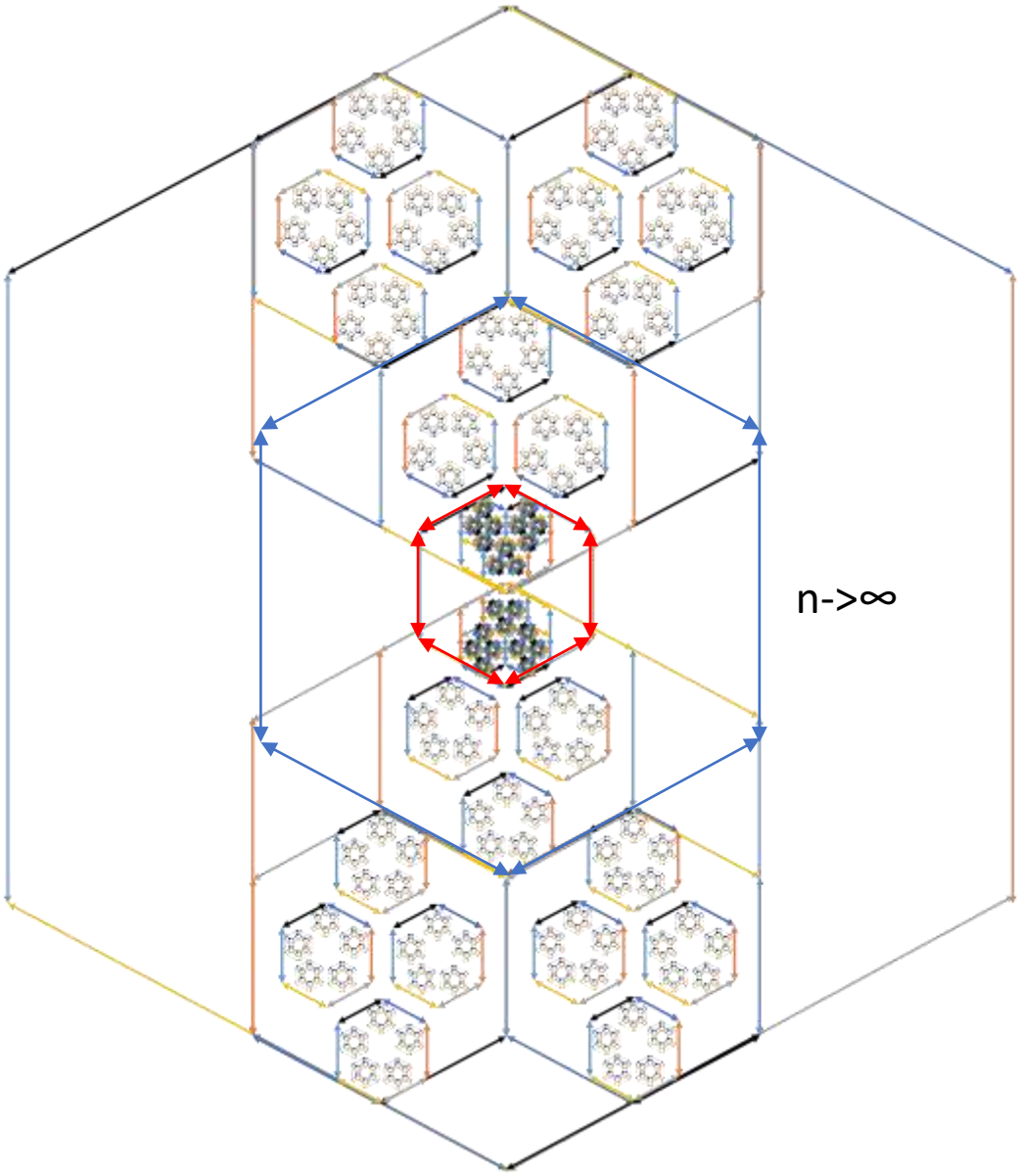

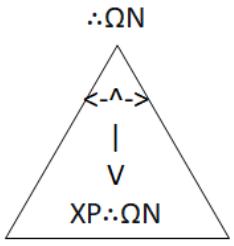

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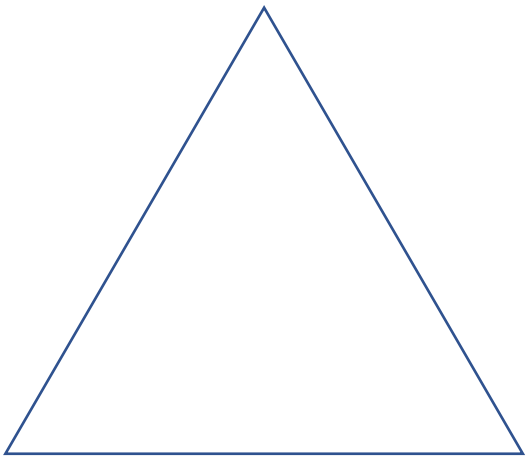
Fibonacci Sequence.
$F(n \to \infty) = F(n-1) + F(n-2)$
Sierpinski Triangle:
$F(n \to \infty) = F(n*3)$
Sierpinski Pyramid:
$F(n \to \infty) = F*4(n*3)$
Fedorchenko Mikhail Valeryevich's Hexagon:
$F(n \to \infty) = F(n(n+1\ n \to \infty)) \to n(n+3) \to F(n(n+1\ n \to \infty)) \to n(n+3) \to F(n(n+1\ n \to \infty)) \to \infty$

Grok
$Fn(n \to \infty) = Fn-1 + 6Fn-2$

Metter



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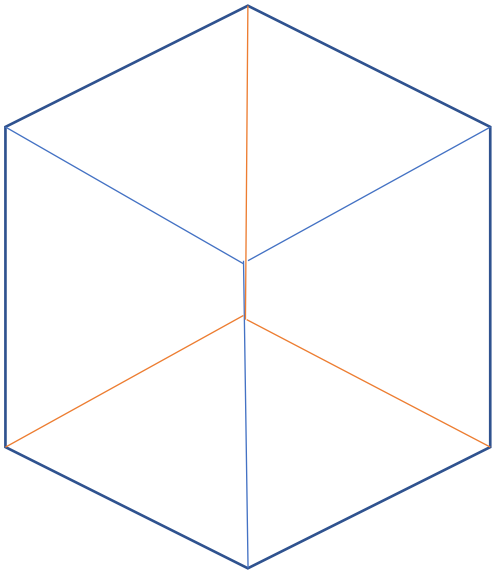
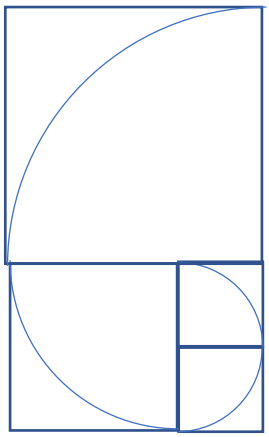
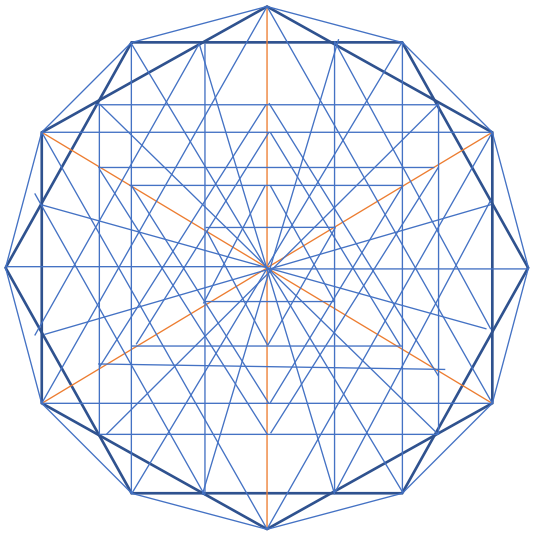


Genesis

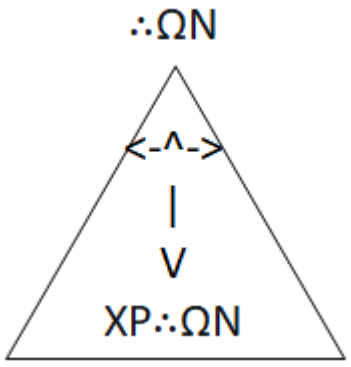


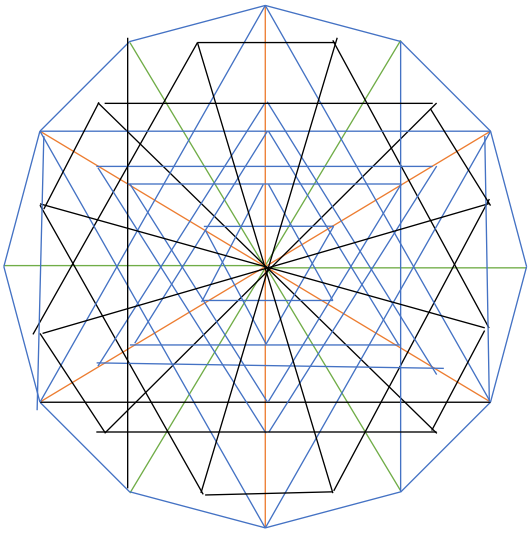
1->1->2->3->5->8->∞

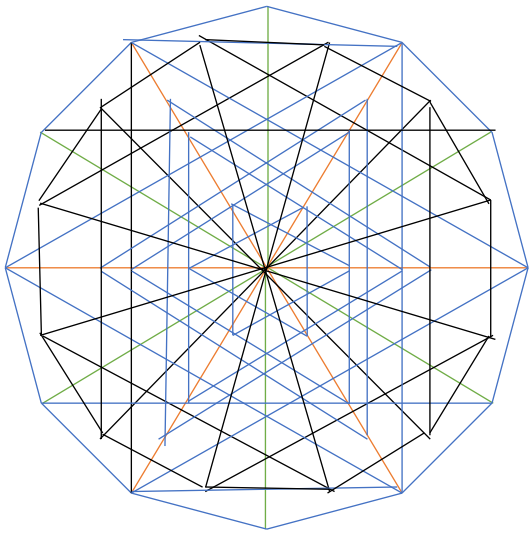
Time

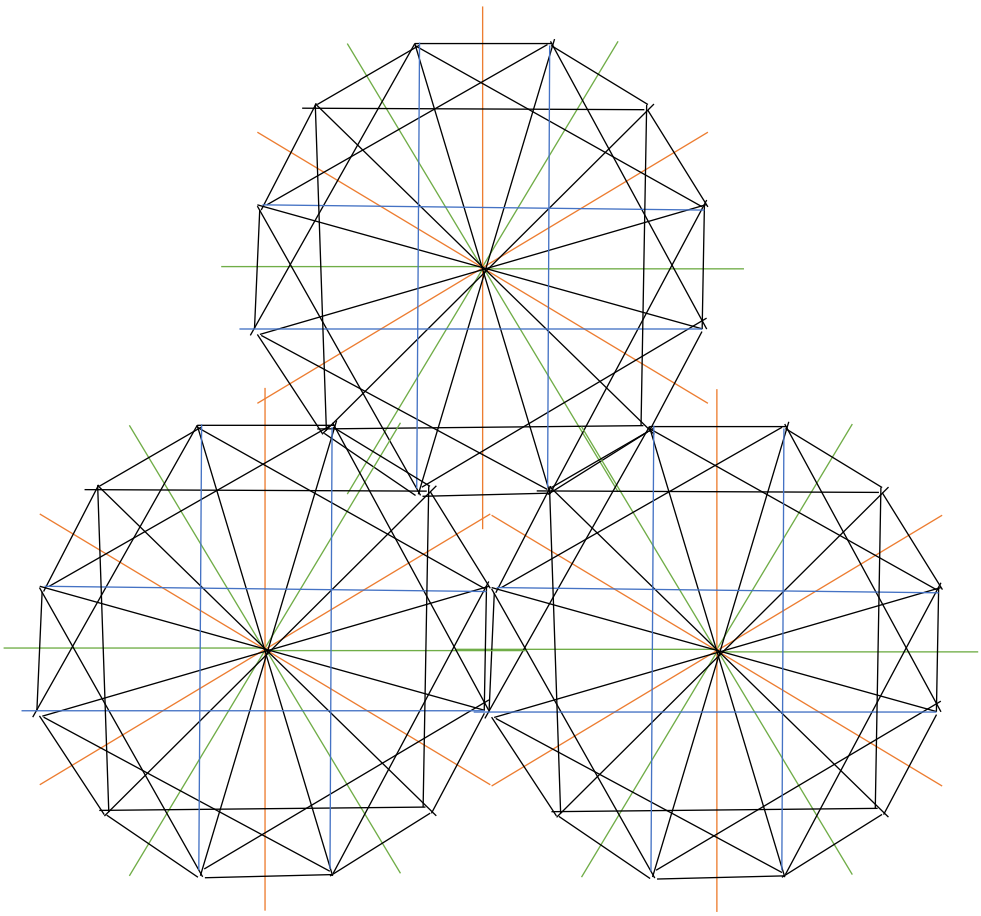


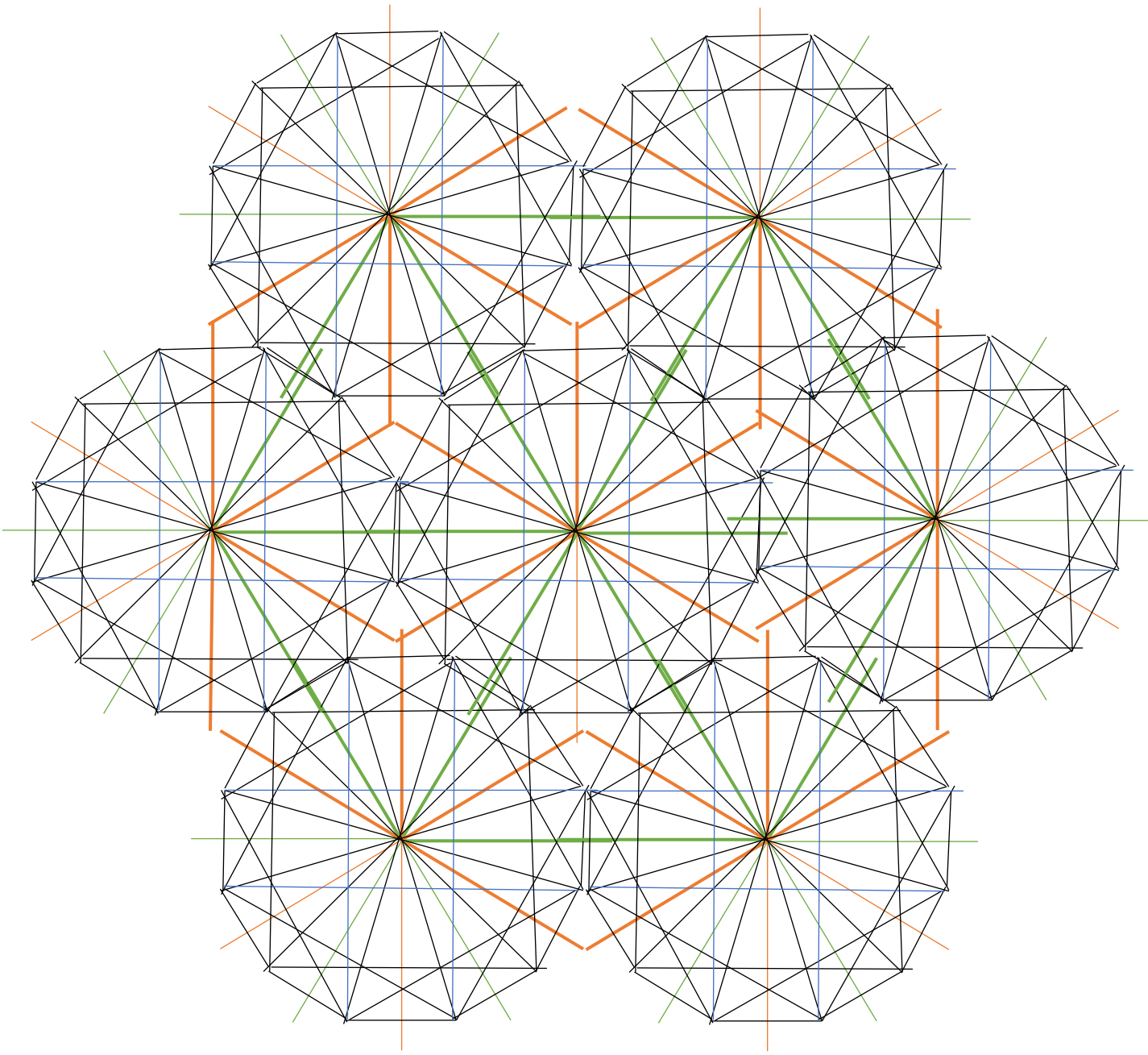
interactivity



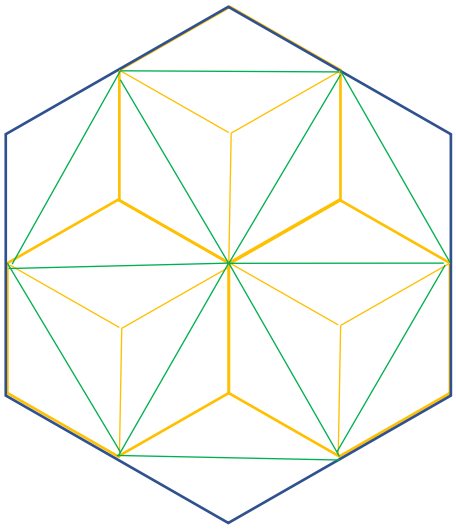


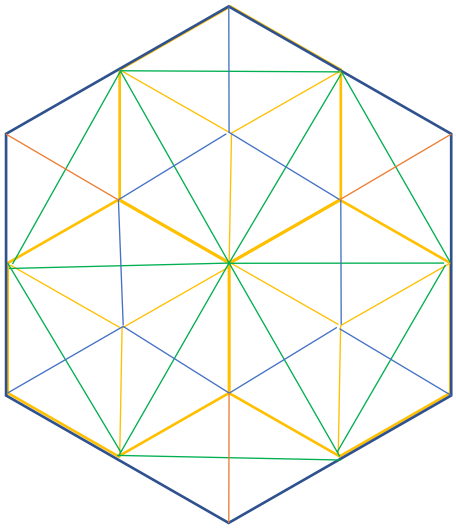


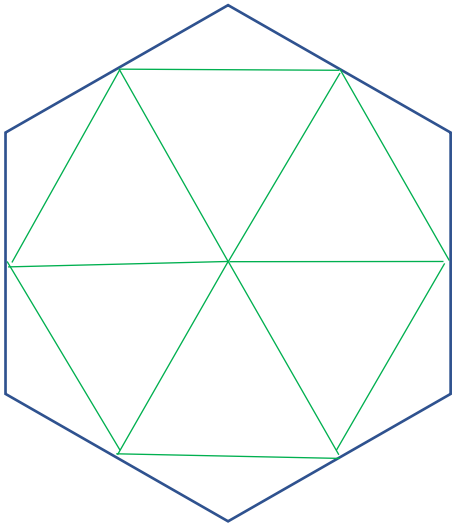


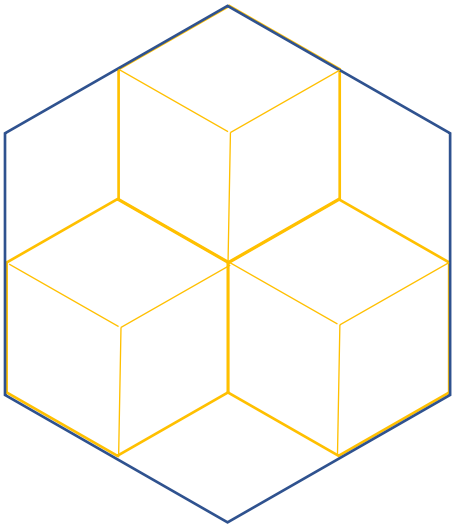


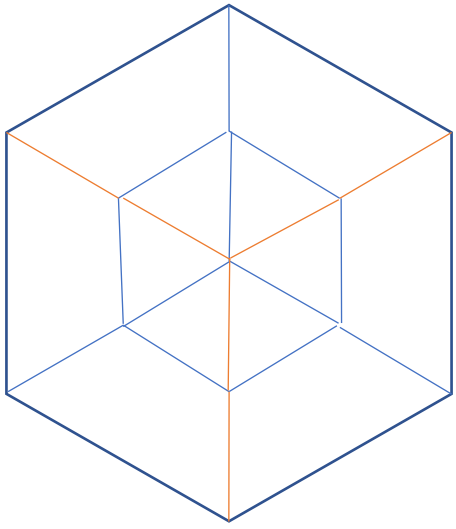
Atom -> Time

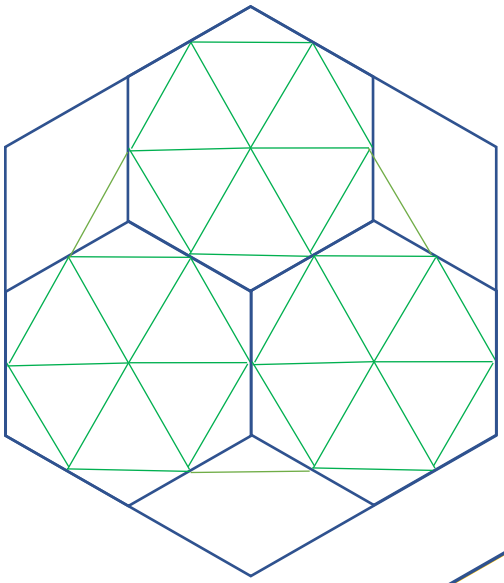


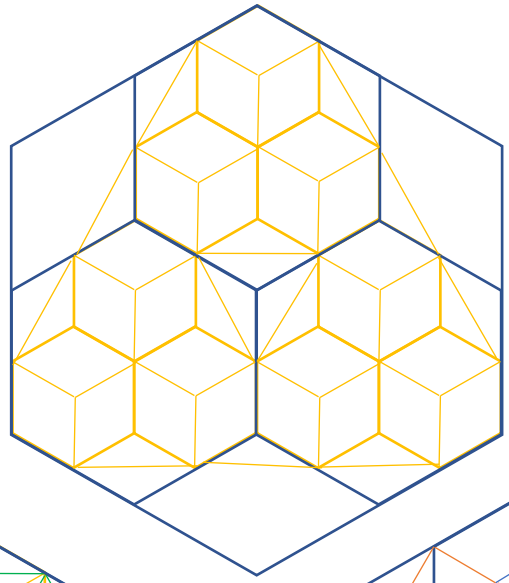


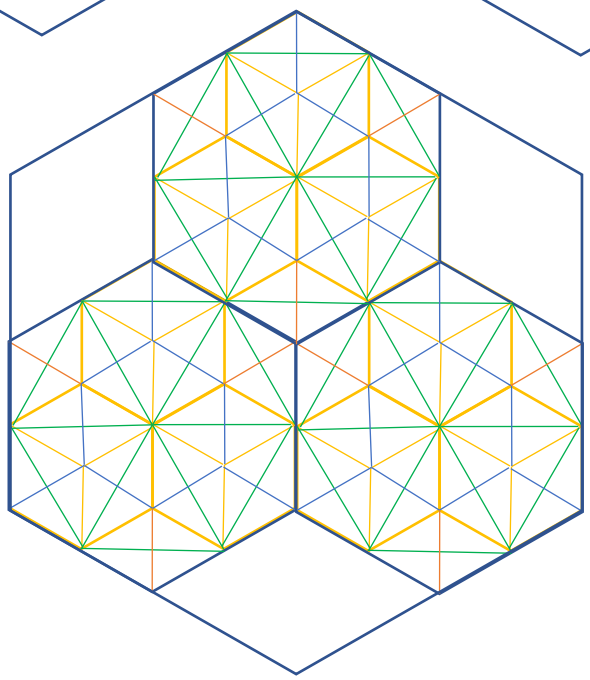


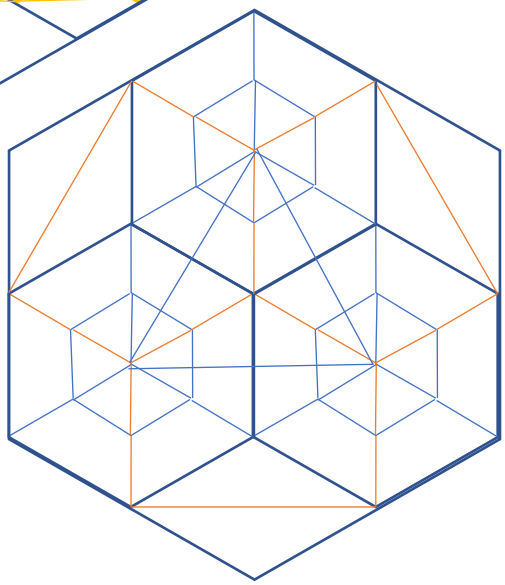


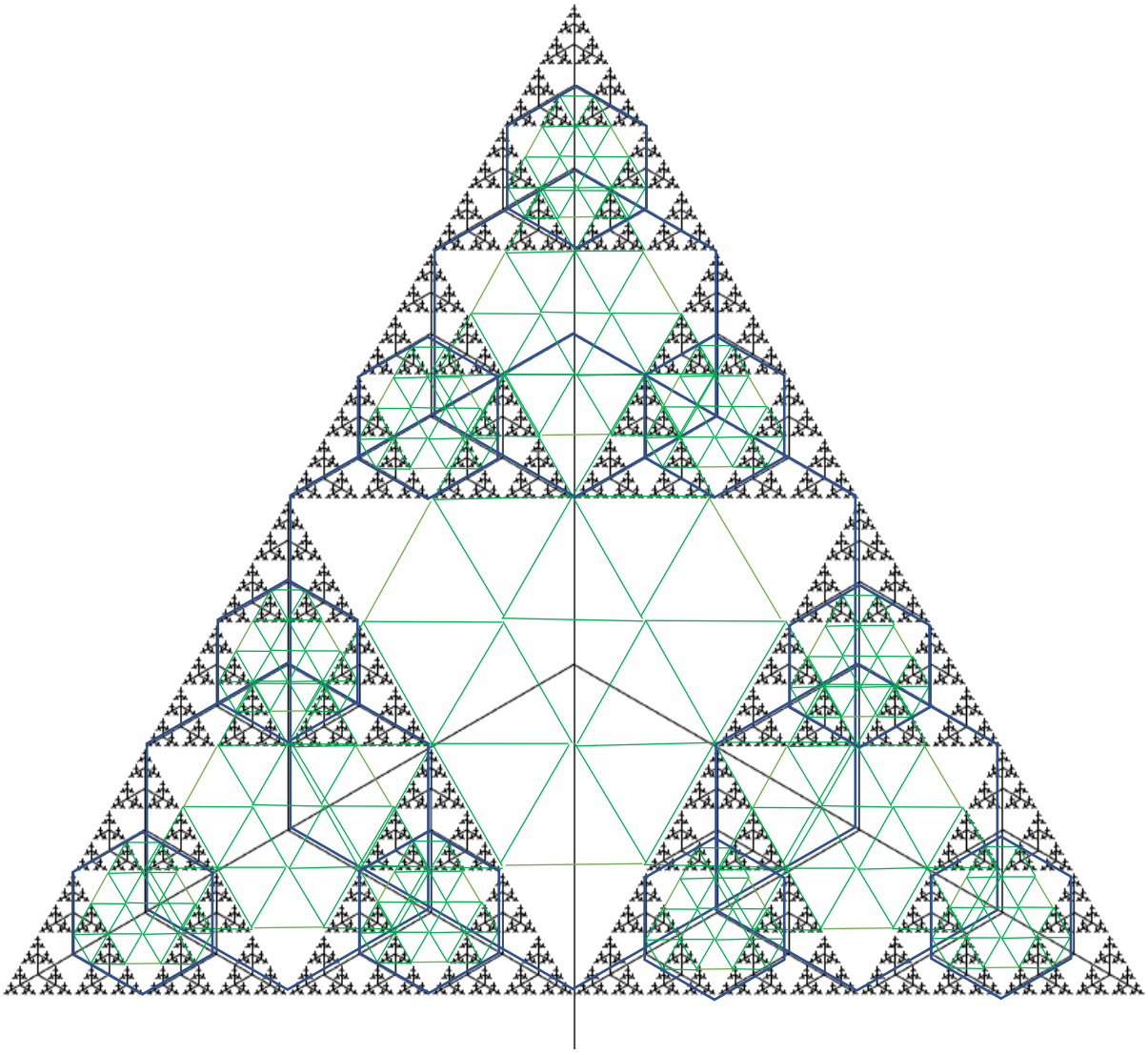












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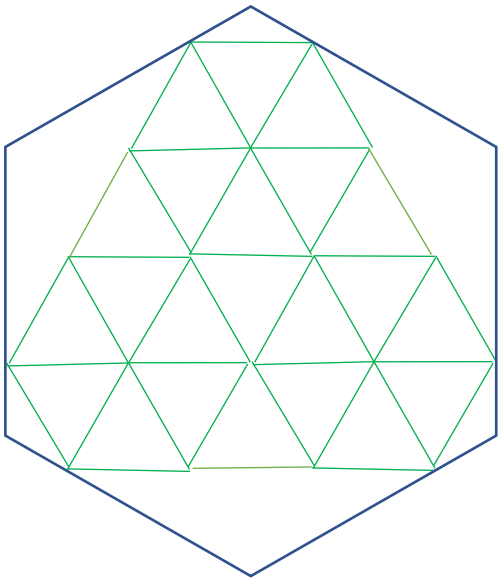
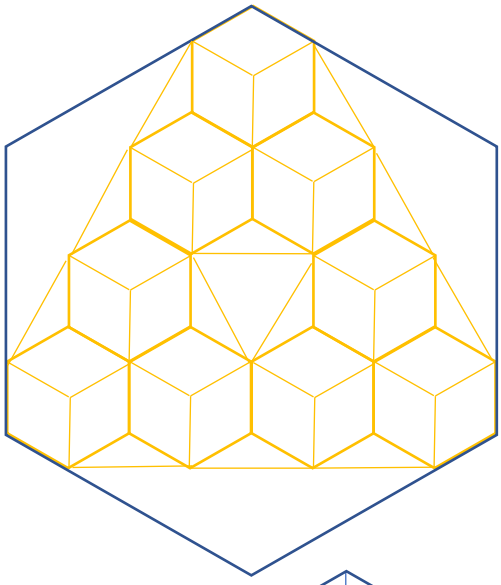
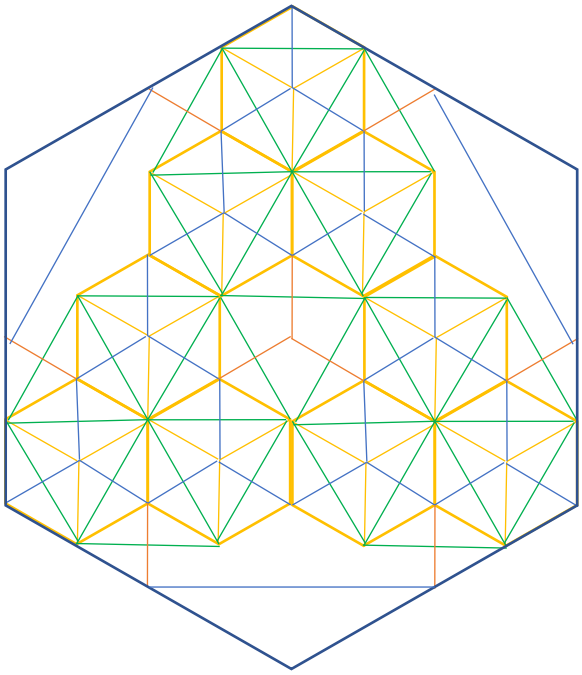
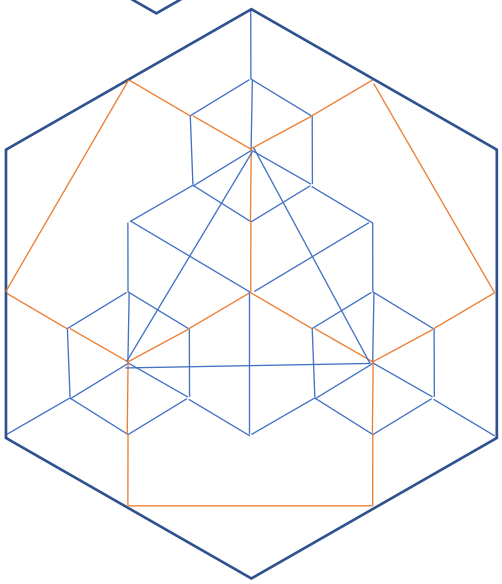
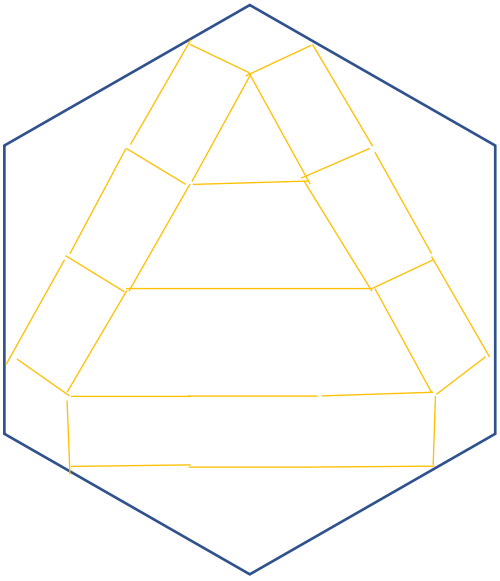
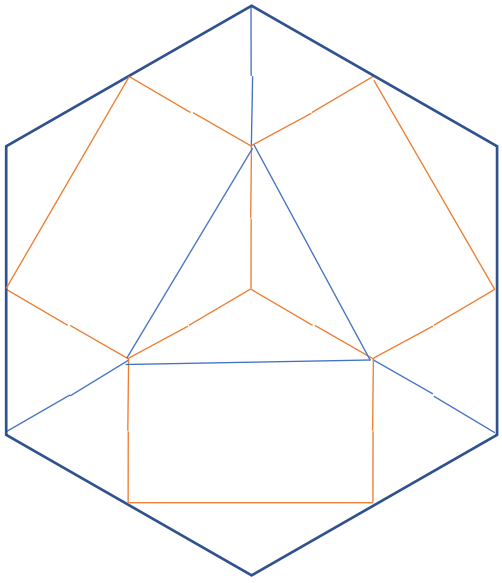


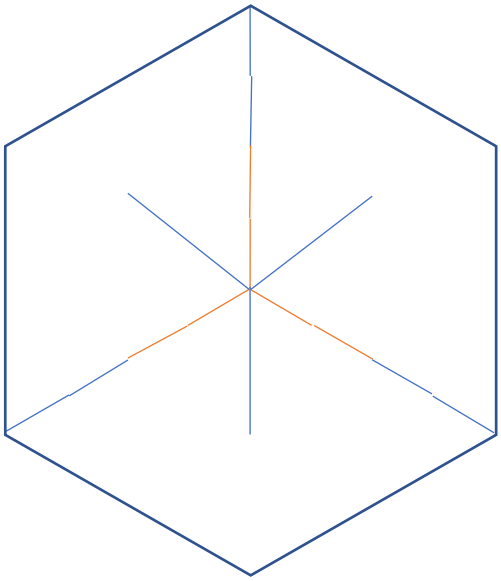


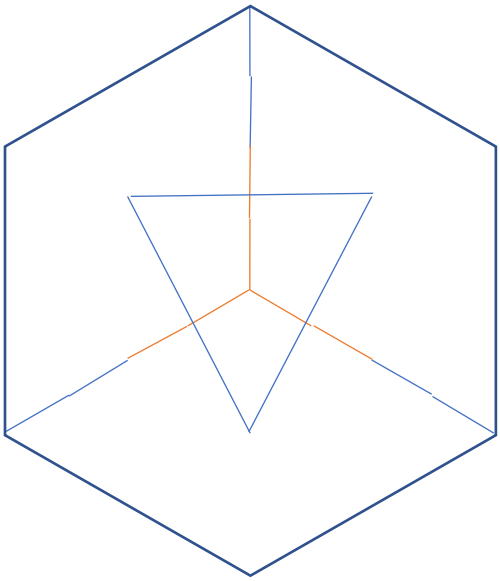


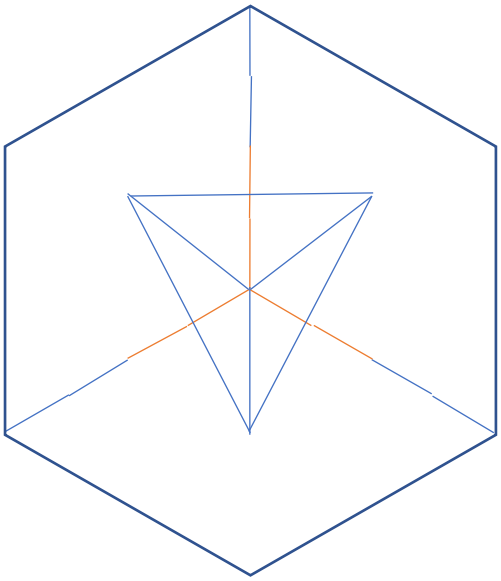


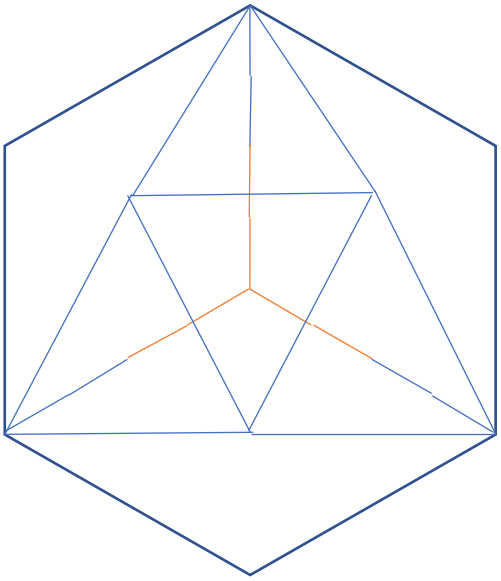


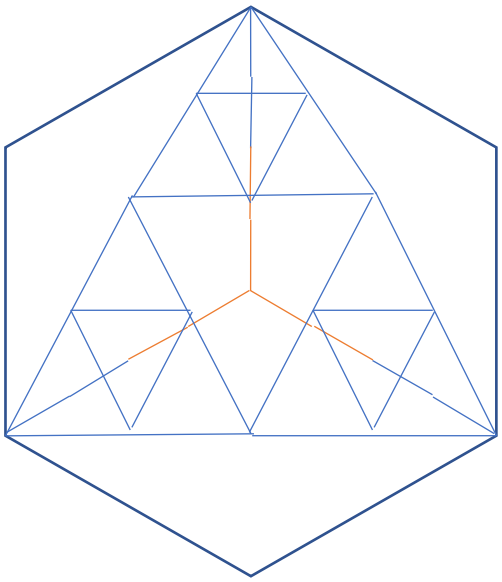


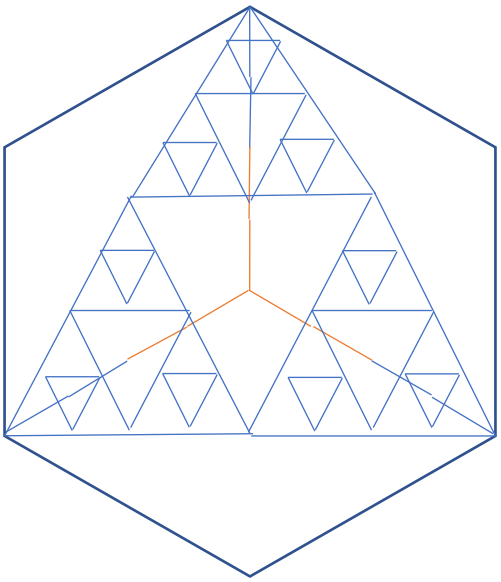


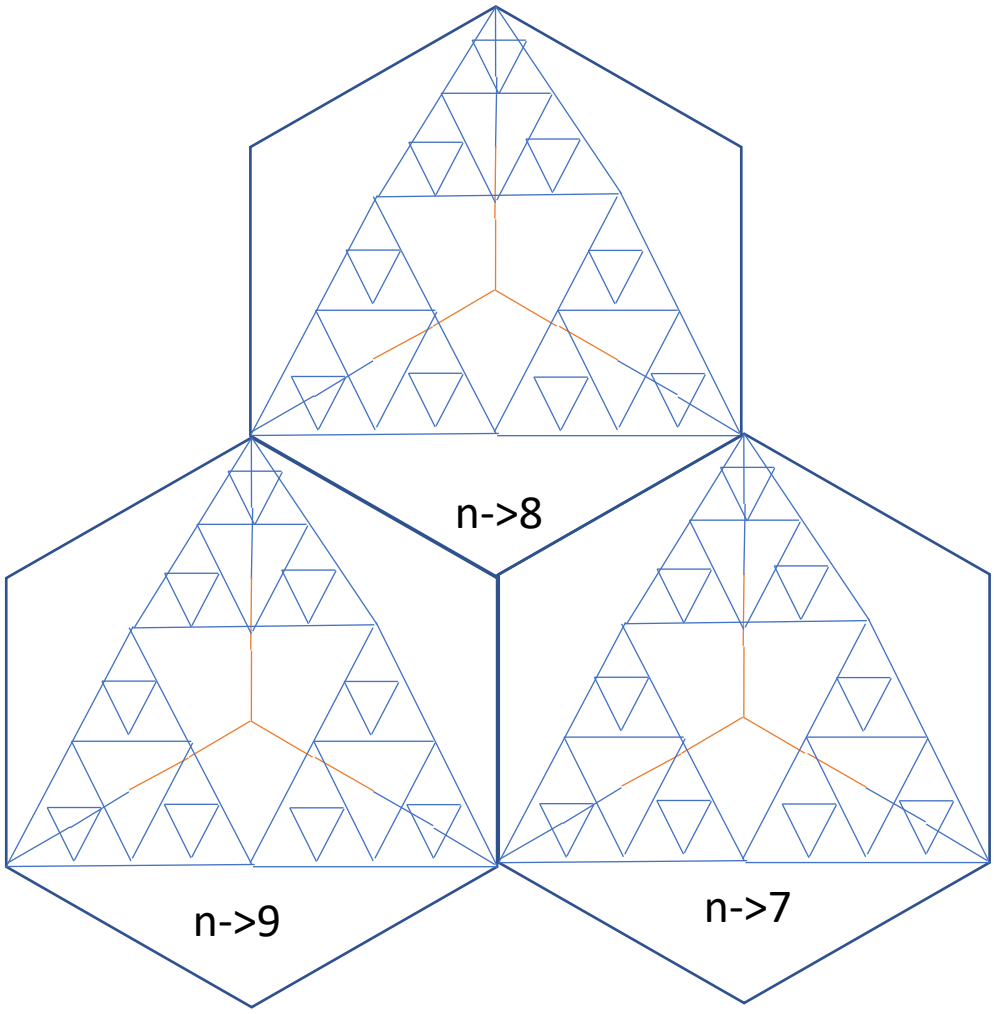




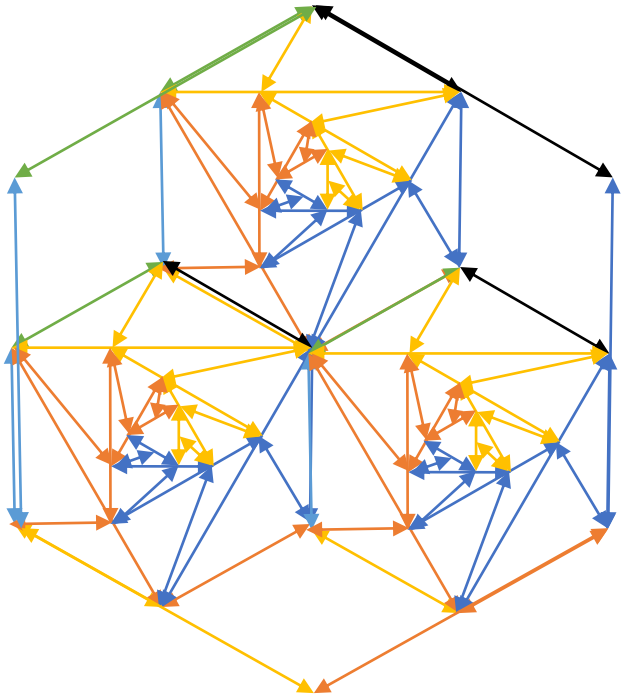


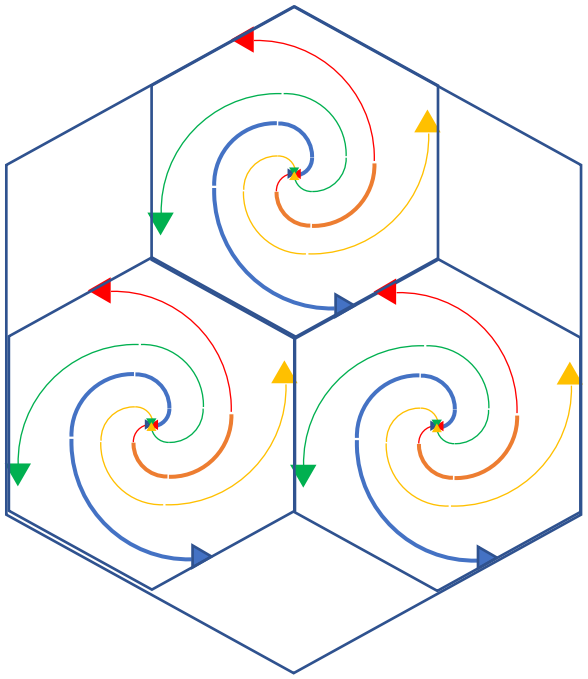


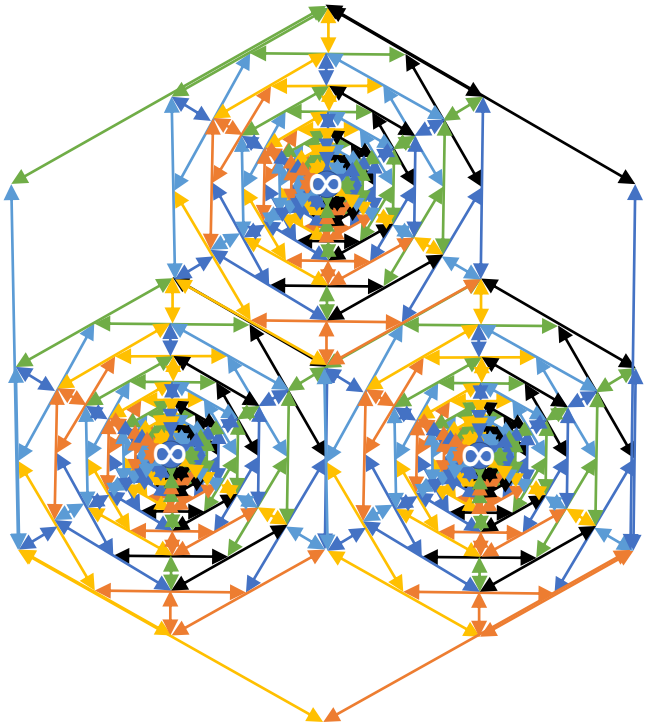


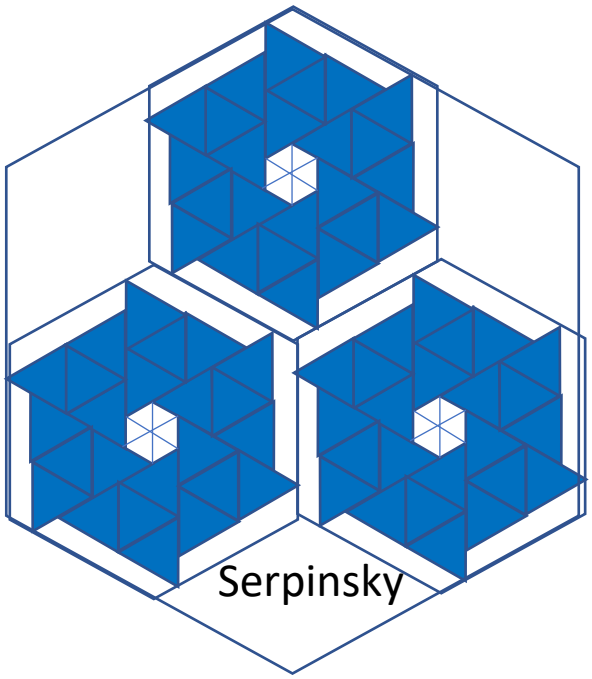


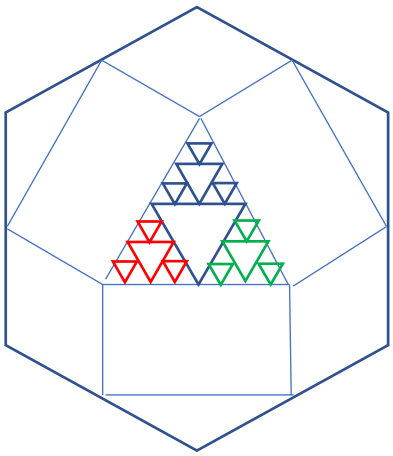
Nonlinear Sirpinsky.

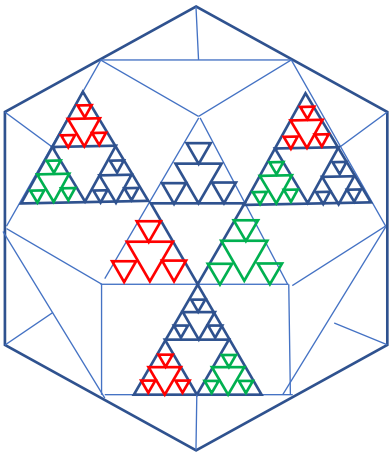


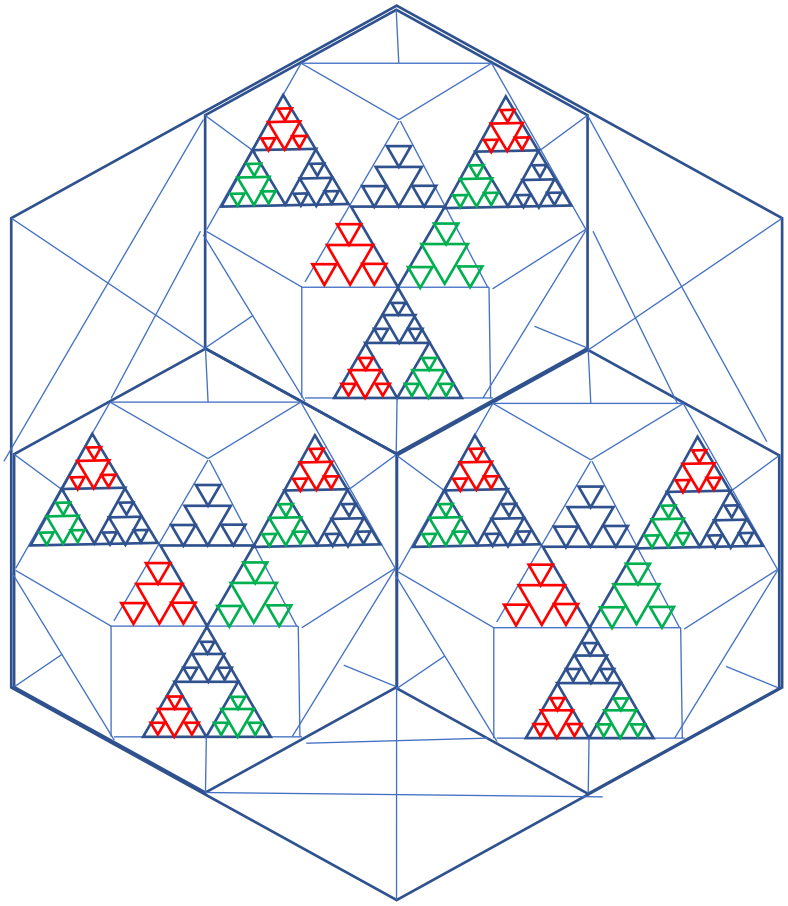


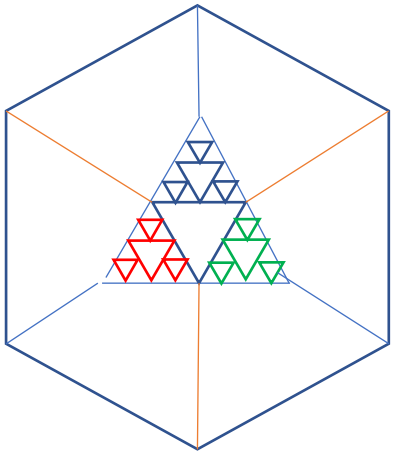



Serpinsky

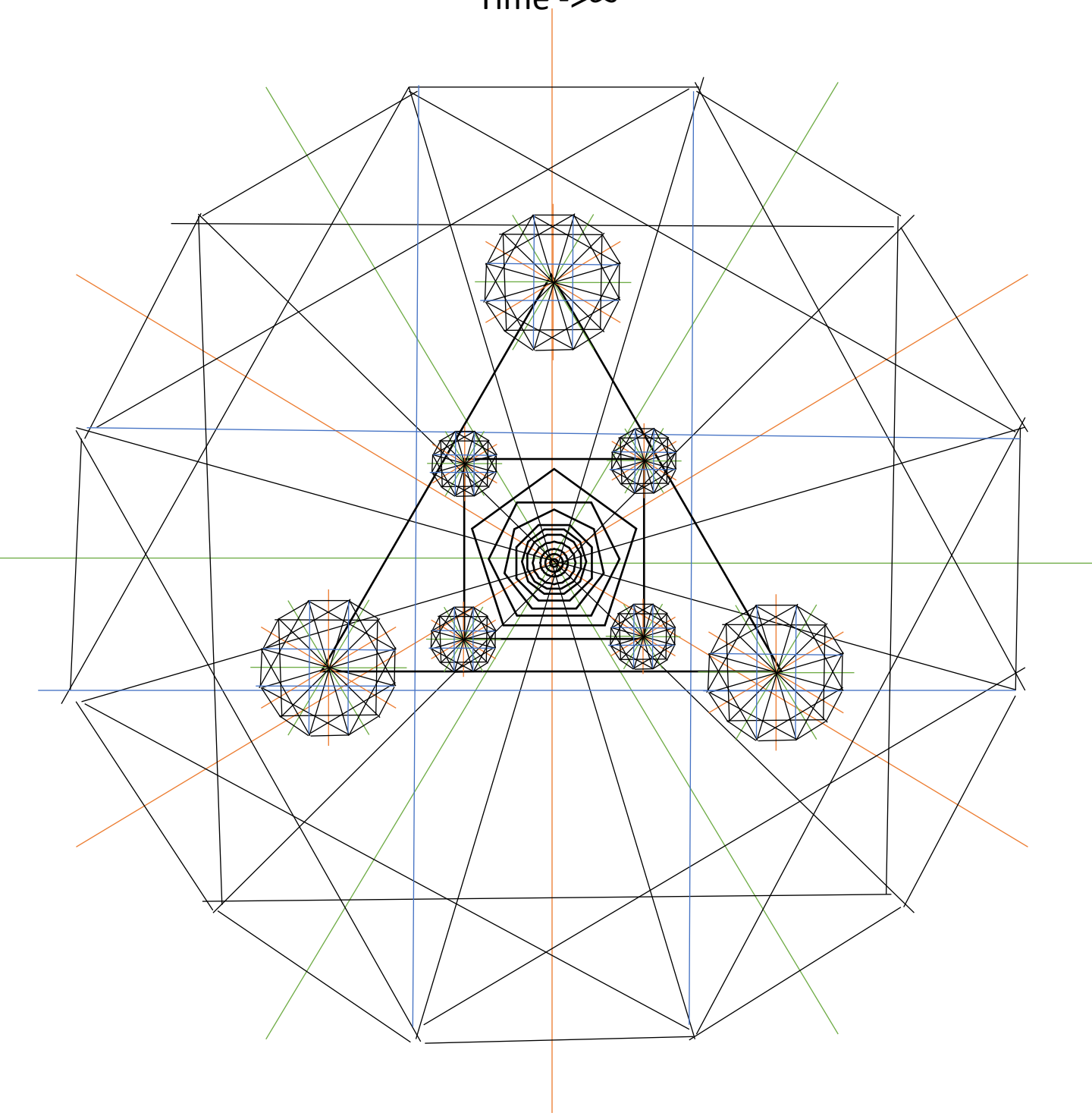


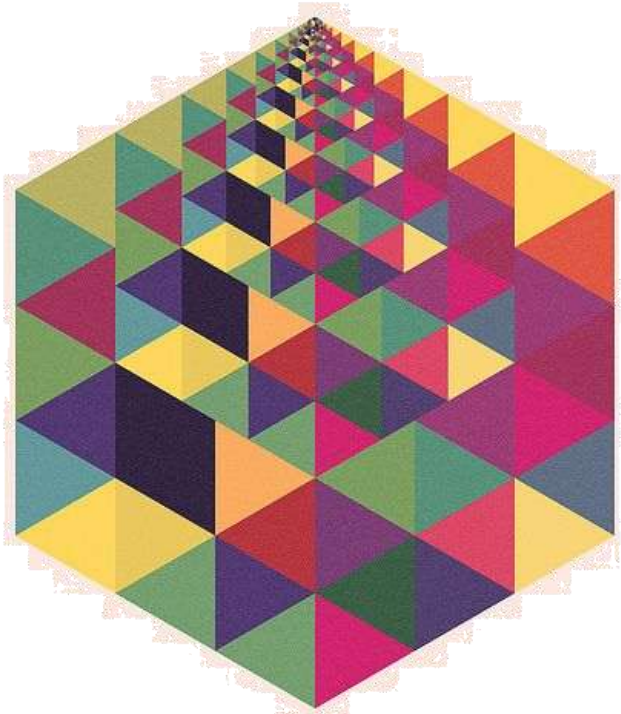


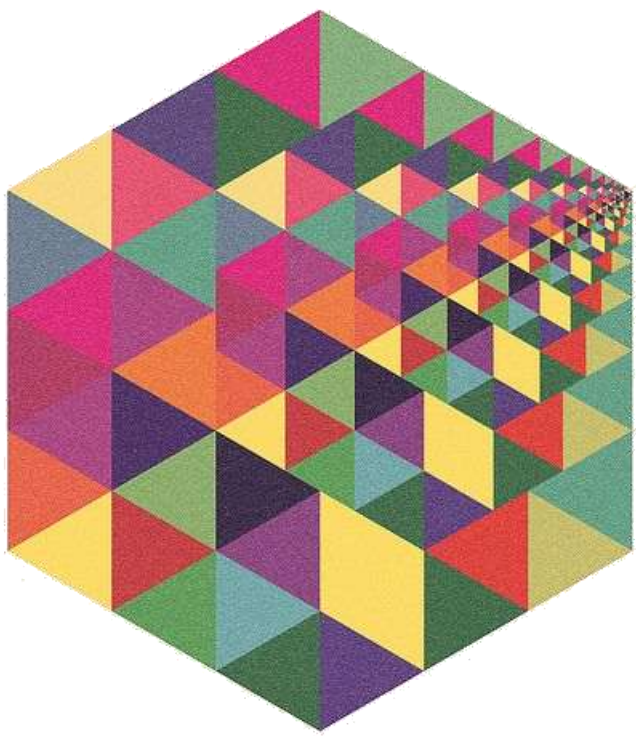


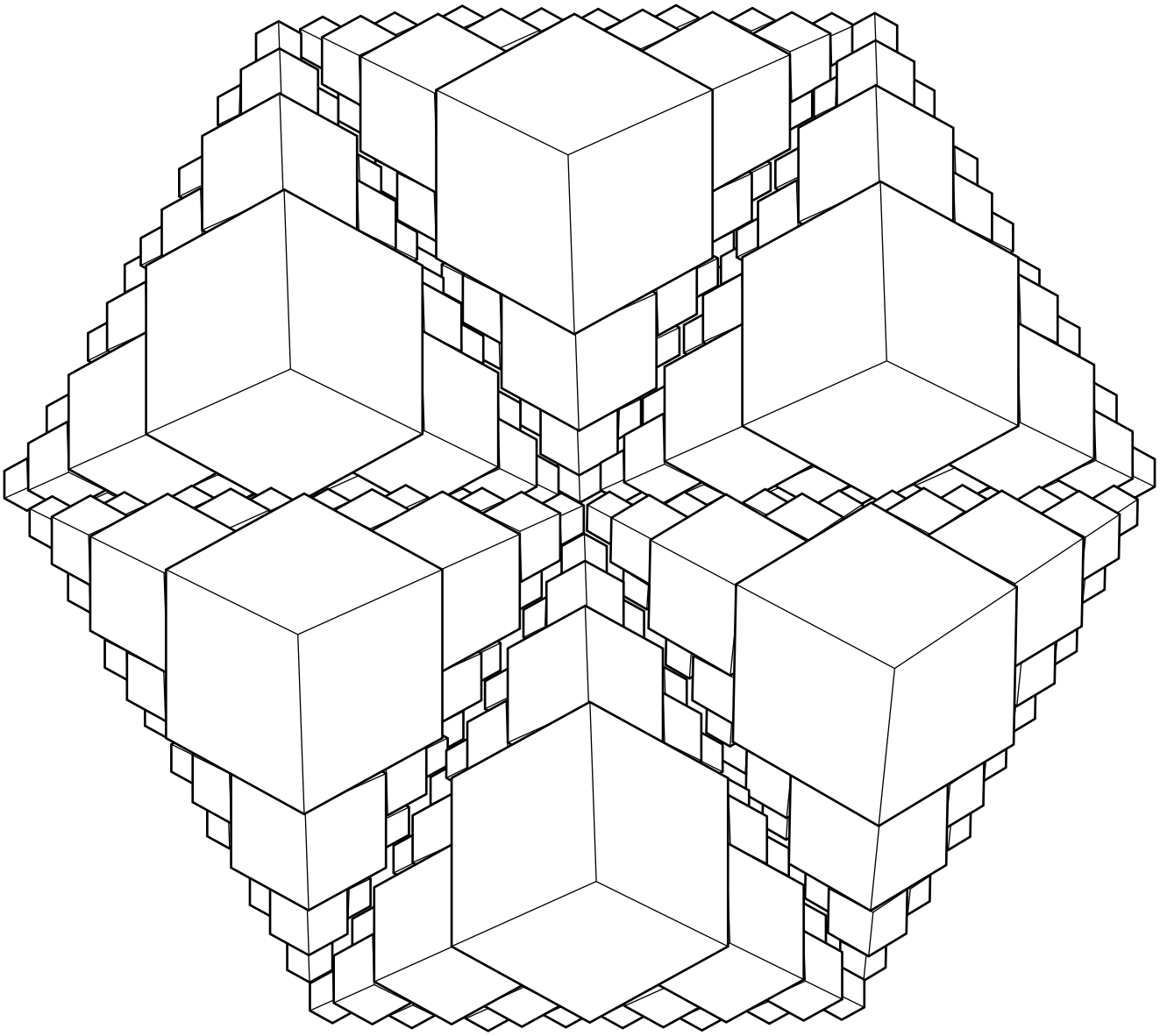


Time ->∞









Cosmology ->Ontology

Fractal cristal